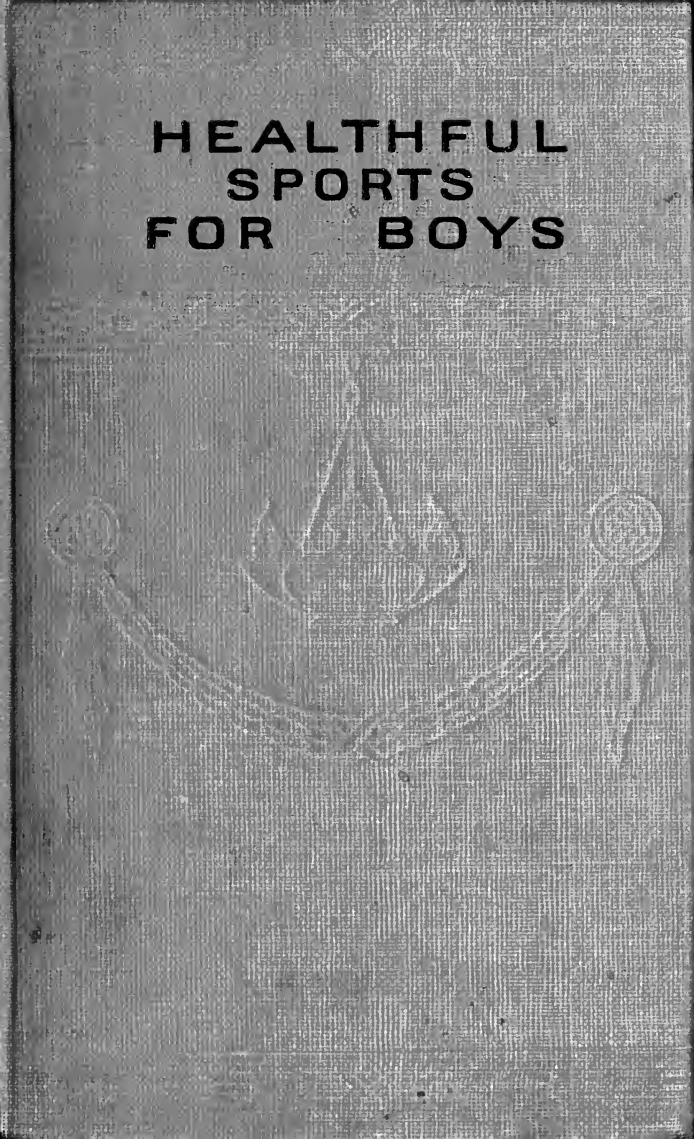
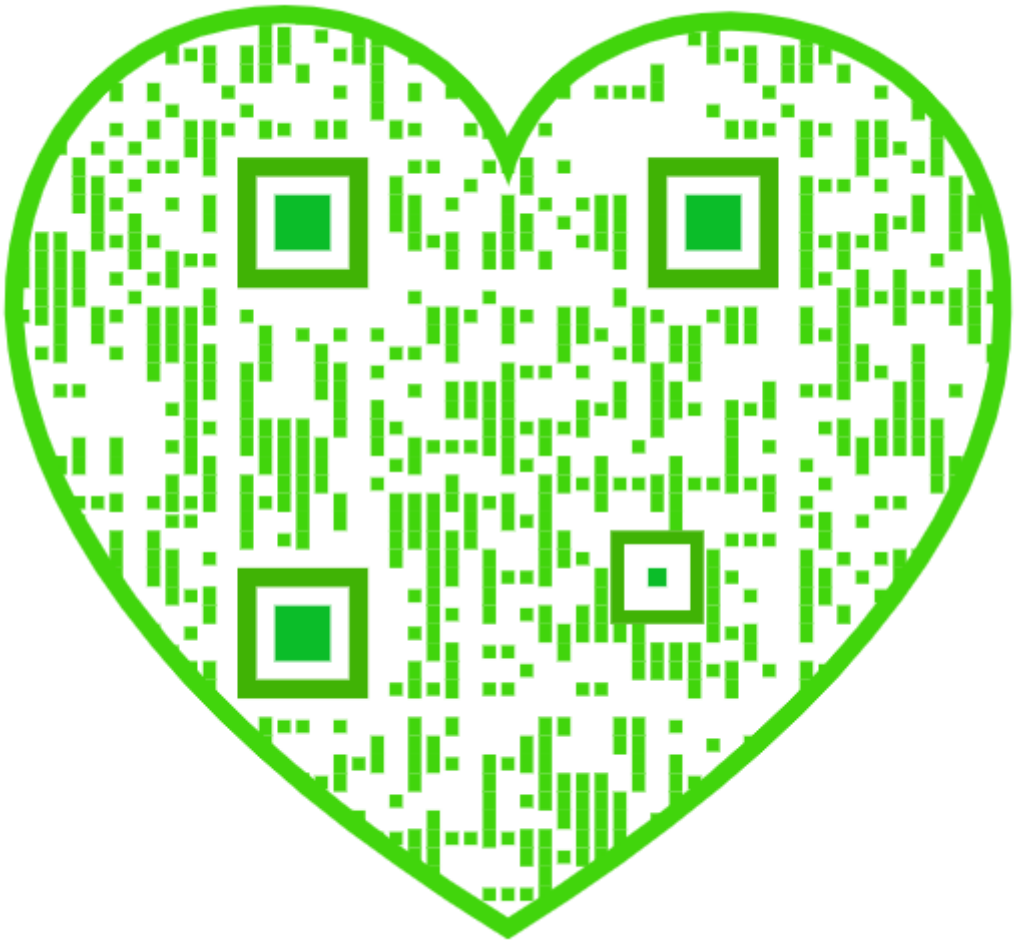
# HEALTHFUL SPORTS FOR BOYS





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# Healthful Sports for Boys

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# Healthful Sports for Boys

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# Introduction

Among the many good and wise things said by the great Lincoln was this: "Give me the boy with promise of the man in him, and give me the man with the memory of the boy in him, and both can sit at my table, and if they sit together, we'll have all the better time!"

This book of out-door games for boys will make better boys, and they'll get a lot more joy out of life and be the better men in time, for having read it and carried out its rules as to wholesome, honest sport.

The boy who plays an honest game will do an honest business, and he'll win over "the sneak."

If you are "a grown-up," read this book, and in doing so live over again the joyous, gladsome days of your boyhood, and you will sigh, as we do while writing this: "Would I were a boy again!"

We want the mother, as well as the father, to read this book, for it will recall the brothers of far-off days, and bring her into closer sympathy—we must not say

"love," for that is already strong enough—with the exuberance of her boys.

And the girls? Why, bless you! They, too, should read every scrap of this book, for they will find in it many of their own games, and not one that they could not play and enjoy, if circumstances permitted.

And the grand-parents? God bless them! Why, they'll enjoy it quite as much as the young folks.

# Spring

# Healthful Sports for Boys

## CHAPTER I

MARBLES: WHERE MADE; TERMS OF THE GAMES; DIFFERENT GAMES; HOW TO ACQUIRE SKILL

Each season has its own particular work for the farmer, and he does his work without direction from or consultation with his neighbors or any one else. Each season has its own particular games for the young folks, and they take to them without any suggestion from outsiders, just as young ducks take to water, without any instructions from the mother bird. The seasons in the south temperate zone are just the opposite to those in the north. Some years ago I spent the months of July and August in New Zealand, and great was my surprise to find the boys down at Dunedin

snowballing on the Fourth of July, while the sleigh-bells made music through the streets. In the following October, which is the spring month in Victoria, Australia, I found the youngsters of Melbourne playing marbles, just as the boys in New York had been doing when I left it the previous May.

## MARBLES

We have reason to believe that the first marbles were fashioned from pebbles on the ocean's shore, or ground into roundness by the action of river currents. We do not know when or where marbles originated, but of the antiquity of the game we are very sure. Egyptian boys played marbles before the days of Moses, and marbles are among the treasures found buried in the ruins of Pompeii, which you will remember was destroyed by an eruption of lava from Vesuvius in the first century of the Christian era. To-day marbles are played in every civilized land under the sun, and with slight differences, the method of shooting and the games are practically the same.

Germans are the greatest toy and game-makers in the world, and so we should not be surprised to learn that that great country not only produces the most marbles, but also the very best. From Germany we get

the finest "agates," the beauty and value of which every lover of the game knows. The more common marbles are made in Saxony, of a fine kind of white limestone, which is practically a variety of the building material known as "marble," and from which the name is derived. Broken into small pieces, and the irregular bits placed between two grooved grinders, the lower one being stone and the upper wood, power is applied, and after much rotating the spheres are turned out, hundreds at a time, and these are afterwards sorted and polished.

Glass marbles, some of which are imitation agates, are cast in moulds that close so perfectly that the place where they join cannot be seen in the finished product. China marbles are made from pottery-clay, and after being joined are baked, and sometimes they are painted. The small gray, brown or black marbles, usually called "commies," are little balls of clay, baked and glazed. These, being the cheapest, are the most numerous, and are usually the objects of attack, and so change owners the oftenest.

## NAMES OF MARBLES AND PLAY TERMS

While the names of marbles and the terms of the game may vary slightly in dif-

ferent parts of the United States, they are in the main so much alike that the following will be understood by all boys throughout the land:

The *Taw* or *Shooter* is the marble used for shooting.

The *Taw Line,* or *Scratch,* is a line drawn for a starting point in the game.

*Ducks* are marbles to be shot at.

*Dubs,* an abbreviation of "doubles," means that you get all the marbles knocked out with one shot.

*Fen Dubs,* an abbreviation of "defend doubles," is shouted by an opponent before the play, and means that you must put back all but one marble.

*Lofting* means shooting through the air, so that your taw does not touch the earth till it hits the object aimed at or a point near it.

*Knuckling Down* means resting the knuckles on the ground while shooting.

*Histing* or *Hoisting* is holding some distance above the ground. It is not permitted in Bull Ring or in Meg-on-a-string.

*Roundsters* means taking a new position to avoid an obstruction. It is not allowed in Bull Ring.

*Sidings* means moving your taw from one side to the other in a straight line when about to shoot. It is barred in Bull Ring.

*Burying* is when the taw, if in a good

spot, is forced into the ground with the heel of the shoe. This is seldom allowed; "Fen buryings" being the accepted law of experts.

*Laying* means placing the marbles in the ring.

*Clearances* means the removal of all obstructions between the players and the ducks.

*Sneaking* means shooting for a position.

*Babying* is shooting so as not to send the taw too far. Good players often do this so as to secure a position from which they can "skin the ring."

*Dabsters* are little squares of cloth or skin laid under the knuckles when playing to keep them from being cut by constant contact with the hard ground.

*Marble Bag* saves pockets and explains itself.

According to quality, marbles are known as "agates," "crystals," "chinas," "alleys," "potteries," and "commies," or the cheapest and least prized.

The three great essentials of the game are the boys, the marbles, and suitable ground.

The marble is shot from the hollow of the crooked index finger, and projected by the thumb. Good shooting is often done in this way, but the most expert shots place the marble on the point of the index fin-

ger, and project it with a firmer grip of the thumb. This method is more difficult to acquire, but it pays as does everything that requires practice and effort. A good player, as in billiards, can make his taw carom for position, or he can make it remain stationary, while the marble struck shoots away in a straight line.

### SOME GOOD GAMES

A boy can practice the above, and I would advise him to do so, but it takes at least two boys to make a game—just as it takes two to make a quarrel, and you must never be one of the latter. Just here let me say that the boy who loses his temper, or who has not the manhood to accept defeat in the right spirit, does not make a desirable friend or playmate, for if he cannot conquer himself he is unfit to contest in the sports of youth or in the business of maturer years.

### FAT

*Fat* is one of our oldest and simplest marble games. It is played in this way: Make a ring eighteen inches or two feet in diameter; ten feet back draw or scratch a taw line to shoot from. If four boys are playing, each places a marble, as indicated, or if there are more players the marbles

are placed at equal distances about the ring. The order of the play having been decided on, by shooting or rolling towards the taw line, the nearness to which decides the question, number one shoots for the ring, and if he knocks out a marble, he shoots again from where his taw rests, and so keeps on until he has missed. Number two knuckles down at the taw line and shoots, as did number one. If the first taw is within range, he can shoot at that, and if he hits it, then number one must hand number two all the ducks he has knocked from the ring. If number two can hit number one's taw again, then number one is killed, and must retire from that game.

When number two misses, the next in order shoots, either at the ring or at the line taw, and so the game proceeds till all the marbles are knocked out, or all but the last player are killed. In the second game, the first man killed is the last to shoot, and so they take turns in the order of their defeat. This game is the more fascinating for its uncertainty, for often the last player knocks out the taw of one who so far has been getting all the ducks, and he gets credit for his score.

### FOLLOWINGS

can hardly be called a game. It is played by two boys—usually when they have

more important business on hand; the first boy shoots in the direction both are traveling; the second follows, and whenever one chances to be hit it counts one for the shooter.

### KNUCKS

In this game, one boy, called "Knucks," takes a small marble between his knuckles, then places the clenched hand on the ground. The other player knuckles down at the taw line, four or five feet away, and shoots—he must not roll—at the marble held by the other. Every time the "Knucks" marble is hit, it counts one for the shooter; each time he misses in the three shots, it counts an additional shot for "Knucks" when it comes his turn.

### THE LONG RING

About eight or nine feet from the taw line make an elongated ring, composed of two sections of a circle, crossing each other. Draw a circle down the center of the long ring, and on this place the marbles. If there are only two players, then each lays a duck at the intersection of the curves. Each additional player adds a duck to the line.

Where there are only two players, the first is sure to "sneak," that is, to roll his

taw so that it will rest near one of the marbles in the ring. If number two hits number one, and so kills him, he wins the game, but if there are more than two in the game, number one is put out. Number two has another shot, from the place where his taw rests, at the ducks in the ring, and he keeps on till he misses. So the game is kept up till all the ducks are knocked from the ring. If it is agreed in advance, each player may lay more than one duck in the ring. In this game the killed are not dead, if there are more than two players. They can play when the turn comes, but it must always be from the taw line.

### THE BULL RING

This is one of the oldest and best games. The ring should be from four to ten feet in diameter. The ducks are placed in the form of a cross, in the middle of the ring, the number each is to "whack up" being agreed upon in advance. The order of play is usually decided on by knuckling down and rolling for the opposite side of the ring. The first player "lofts" at the ducks. He must drive the marble outside the ring for a win. If his own taw goes outside, the successful player can come back to the ring edge for his next shot. If it is a miss and the taw goes outside the ring, it must be replaced

inside at the point of exit. When a taw is struck the owner is "dead" for that game, and the successful player keeps on shooting till he misses.

When two or more ducks are knocked out of the ring, the player is entitled to raise his score by that number, provided he shouts "Dubs" before the others cry "Fen dubs." If a player is caught "hunching," that is, pushing his fist beyond the line while shooting, and makes a hit, he must replace the marble and shoot over again. "Histings" and the use of "bowlers" are barred in the bull ring.

"Sneaking," that is, shooting the taw so that it will rest near the middle of the ring, is allowed. If this taw is not hit, it may be able to skin the ring when its turn comes. A dead man, when his turn comes, and there are enough ducks remaining to warrant the risk, may re-enter the game by placing in the ring twice as many marbles as were at first required, and an additional duck near the edge of the ring; on this duck he caroms so as to send it out, then if his taw is in a good place, he may come out ahead.

### DUCK-IN-A-HOLE

Make three shallow holes, and about ten feet away draw the taw line. The holes

are three feet apart. The object of each player is to shoot his taw so that it will enter and stay in the first hole. If he succeeds, he is allowed to place his thumb on the far edge of the first hole, and using his hand as a pair of dinders, by a twist of the wrist he marks with his longest finger a curved line on the ground. This is called "taking a span." From the span line he shoots at the second hole, and if successful continues on to the third. If this is won, he takes a span backward for the middle hole. If he reaches the first hole, he repeats it over, but this time he is entitled to two spans. The third time, if there is no miss, he can take three spans, and if he succeeds, he becomes a "King Duck," and takes four spans.

If the first player misses, and the second player rolls into the first hole, he takes a span and shoots—if it is near—at the first taw, and if he hits, he can place his taw in the second hole, and so on till he misses. When number one's turn comes, he must shoot from the spot where his taw rests.

In this game the first king has a great advantage because of his four spans. Each time a player hits another, he scores one point, and the hit loses one. By the time all have become King Ducks the game is over, or it may be decided in advance that

when one has made five or ten points, the game shall end.

### MEG-IN-A-HOLE

differs from the foregoing game, in the fact that there is no taw line. The player shoots from one end at the middle hole. If he succeeds, he is entitled to a span, and he keeps on as before till he becomes a king. Before this, he can take but one span in any direction, but as a king, he can take one foot measure—his own foot—and a span from the first hole; two feet and a span from the second hole, and three feet and a span from the third hole. This gives him a great advantage, and if there is no rival king he is "Monarch of all he surveys." If there is a second king, the first one assigns him the first hole to guard, because from this he can take only one foot and a span. When all become kings, or the points agreed on are won, the game is over.

### SQUARE RING

A "Square Ring" sounds odd, but such things go in playing marbles. The square may be of any size, but four feet is the best. The taw line must be from twenty to thirty feet away. Before a player can

win the game he must first kill all the others. Perhaps that is why it is sometimes called "Injun."

The first player is at a great disadvantage, for if he knocks out a duck he must replace it, and if his taw stops inside the ring he has killed himself, and is out of the game. The best way is not to knuckle down but to toss for a good position near the ring. The second player, for obvious reasons, must keep away as far as possible from the first, so he shoots through the ring with force, hoping to get a duck on the way, for he does not have to replace it. He can take the duck back to taw and holding it in his left hand shoot at it so as to send his own taw close to number one, which he can then kill.

If number two misses, number three pitches his marble off to one side, and so the game goes on, each player guarding his own taw and trying to kill his rivals. Knocking out ducks gives the privilege just described, after which the duck is replaced.

## CHAPTER II

### WHIP TOPS, PEG TOPS, HUMMING TOPS AND SOME TOP GAMES

Why it happens, no one knows, not even the boys themselves, but that it does happen we all know. Tops come in when the marble game is in full blast, and gradually it drives out, till another spring, its beloved rival. Tops are of great antiquity, and the Chinese and their neighbors, the Japanese, are famous for the variety of their tops. I have seen adults in those countries enjoying the game with all the zest of American boys in springtime.

It is a good idea for boys, where they have any facilities for so doing, to make their own play tools. In the old days, they whittled out tops, but it hardly pays to do so to-day when well-shaped spinners can be had in every toy shop at a very low price. However, good little tops can be made from the wooden spools on which sewing thread comes. Two tops, that will amuse the younger children, can be made

from each spool, by whittling down from the rims to the middle of the spool till the parts break at the opening. A peg driven through answers for a spindle. These can be made in a few minutes, and may afford some fun for a winter evening.

### WHIP TOPS

If not the very oldest, these tops are certainly the most widely distributed. If a good whip top cannot be bought, a first-rate article can be made from a section of a rounded timber, either natural or turned. It may be of any size, but from two to three inches in diameter, and about a half inch or more in length is the best. Whittle this, with care, to a blunt point, into which drive a smooth-headed tack, and there you are. With colored crayons, or paint, the top may be decorated, so as to add to its effect when spinning.

Tough rags, or leather thongs fastened to a handle about a foot in length, will make an effective lash, but the best whips are made from pliant leather thongs, or still better, from a dried eelskin.

To spin the top, put your whip under your left arm—I have seen boys grasp it between their teeth—then with the flat of the fingers of both hands on either side of

the top, give a smart twirl. As soon as the top is in motion, ply your whip along the sides, drawing the lash quickly away at each stroke.

Playing whip-top alone soon gets to be monotonous, but where there are two a "fight" can be arranged for. At the word "go," two boys spin their tops, and then lash them till they crash together. The tops must be kept within a described ring, and the one that knocks the other out is regarded as the King top. If a boy strikes his opponent's top, it is a "foul," and he loses the game. Another contest is where, after the lashing, one calls "stop." The one that "dies" first, is naturally out.

Racing is done by drawing a taw line, from which the whip tops start for a designated goal, the first one in winning. This is an exciting game and not so easy as at first appears.

The tin or wooden humming top is but an interesting toy. The Japanese make them with a slit in the point which fits into a string or a thin wire, and on such supports they can be made to do remarkable feats.

### THE PEG TOP

The Peg Top is, after all, the King of the top family, and the greatest source of joy to the youth with a sure eye and a

steady hand. The "Plugger" is the top you spin; the "bait" is the top you strike with the plugger. A "Giggler" is an unsteady top that goes dancing and hopping about. Boys love their "old reliable taw" in marbles, but their pride in this is never so great as that which they take in a conquering plugger. This should have what is known as a screw peg, which prevents splitting. It can be made, but on the whole, I think it better to buy the pegs.

A good, stout, pliant cord is quite as necessary as a well-balanced top. It should have a button, never a loop, to keep it from slipping through the fingers, and it should be of a thickness to fill, without overlapping the grooves. The end should be frayed and moistened to insure a firm grip when starting to wind. It requires much practice to become expert in spinning the peg, but, as in everything else, it pays to learn accuracy.

As with whip top, playing alone soon ceases to be good fun, but the game makes for enjoyment. Mark out a bull ring about six feet in diameter. Put as many tops inside the small ring as there are players, then toss up, or in any other way decide on the order of play. After winding up his peg, the first player, with his left foot toeing the outer ring, strikes for the tops in the center. If he misses and fails to spin,

or if he strikes outside the inner circle, he must put another top within the circle and await his turn. If he strikes the tops with the big end of his plugger, it is a miss, and he must replace any top knocked out; but if the peg of the plugger hits a top and knocks it out of the center ring, he pockets it and has another whack. If in spinning in the center ring the plugger jostles out a top or tops, it counts as a hit, and the player is entitled to another "try." If the plugger spins and dies in the ring without knocking out a top, it is a miss, and the player must add another top.

Sometimes a crack player throws with such force and accuracy as to split a bait top. This is the acme of the game and the crowning glory of the player. Often the bait consists of toothless, battered wrecks, but this does not lessen the fun of the game.

## CHAPTER III

KITES: WHERE FOUND; HOW MADE; THEIR PRACTICAL USES; CLOSELY RELATED TO AEROPLANES—A GREAT SPORT

Spring winds favor kite flying. This is another world-wide sport, and it was popular with old and young in China—the land of the kite—at the time when the Egyptians were cutting stones for the pyramids. Everybody knows, or should know, what the great Ben. Franklin did by means of a kite, though the kite through which he learned the nature of lightning was of a model that is not often seen at this time. This was the old bow kite, the kind that every beginner learns to make, and which needs no detailed description here.

The hexagonal or coffin-shaped kite is more reliable than the old sort, and is quite as cheap and as easily made. Kites of both these kinds have been used to get a line from a stranded vessel to the shore, and engineers have used them. They did it when the first suspension bridge was built

at Niagara, to get a line across the chasm, which gradually grew into the great suspending cables.

Kites have been used to draw light vehicles over smooth ground, and they make good sport when made to draw sleds over the ice, or as "top-loftical" sails for small boats. I have seen in New York a tandem team of ten kites used for advertising purposes.

The Star Kite is easily made and is well worth doing. Get three sticks or sections of light string, both of equal length. These are fastened in the center, so that, with the ends of the sticks equal distances apart, they will form a six-pointed star. The covering should be of thin, close cotton cloth, or, better still, of light, strong paper, which must be pasted so as to present the side of greatest resistance to the wind, else it will soon be blown off. The tail band is simply a loop fastened to the sticks at the bottom so that it will hang below the kite, and balance it when it ascends. The belly-bands for support and steering—in the latter case two lines are used—must never be attached below the central cross-piece.

Boys often find fun in sending "messengers" up the strings to the kites. After the kite is up a good height, round pieces of colored paper with a hole in the center and a slit by means of which they are

slipped on the string, are sent up. They travel with the speed of the wind till they reach the kite, where they stop. If too heavy, or too many, the messengers may get the kite out of balance.

A messenger has been sent up 6,000 feet, or over one mile. That is the height to which American scientists have sent kites with thermometers and barometers attached, so as to record the elevation and the temperature.

### THE HARGRAVE, OR BOX KITE,

is something new and hitherto unheard of in the kite line. Rigidity and strength, without too much weight, are the prime essentials of the Hargrave. It may be made by a boy with a knack for mechanics in the following way: Take eight stiff, slender pieces of bamboo, eighteen and three-quarter inches in length, such as are sometimes used for fishing poles. These pieces must be of uniform weight and length, and as nearly alike as possible. Next cut six sticks, each eleven inches long, and as nearly alike as possible. These are for the middle uprights and end stretchers. After finding the middle of the longer sticks, lash them together in pairs by means of stout waxed thread, or light brass wire. Notch the ends of the sticks and make the spread be-

tween A and C just eleven inches. This will give you four pairs of crossed sticks. Next take one of your eleven-inch uprights, and bind it to the two pairs of cross-sticks. Take the other eleven-inch upright and fasten the other two pairs of cross-sticks in the same way.

This done, cut two spines, or connecting rods of bamboo, each thirty inches long and as nearly alike as possible. Next, with waxed thread, or light wire, bind the two spines over the ends of the eleven-inch stretchers. The spine must fit like the top of a letter T over the stretchers and be square; that is, at right angles with the stretcher. Each end of the spine must project beyond the uprights five and one-half inches; that is, the ends must each be five and one-half inches long, which leaves nineteen inches between points named. Bind the other four stretchers to the ends of the sticks. Now string the frame so that all the sticks, except the diagonals, shall be at right angles, or "perfectly square," as boys say. This done, paint all the joints with glue.

The frame when finished should measure 11 x 11 x 30. This is the measure for each of the two boxes or cells, which should have eight inches between. Cover the frame with a strong, light cloth that will not stretch, and sew it on so as to form two

boxes covered at the top, bottom and ends. The two broadsides of each one are left open to receive the wind. On the bottom boom, at or near the edge of the cloth cover, fasten a small brass ring for a belly-band. If the foregoing be well done, you will have a kite on the principle of a flying machine, and you will be up with the times.

*Kite String* must be considered. In a light wind and with an ordinary kite, good, strong twine answers all purposes, but with large kites and a stiff breeze, the best string is a twisted linen line. Learn how to tie knots that won't come undone, and take care not to cut or blister your hands in letting out or hauling in.

### TAILLESS KITES

are fast superceding the old-time kind, and they are quite as easy to make and are much easier to manage. Here are directions for making it: They can be made in different sizes and flied tandem, from twenty to hundreds of feet apart. The longitudinal stick should be of strong spruce, sixty inches in length and about three-eighths or one-half inch in width and thickness. It can be of any size, if these proportions are maintained. The cross-piece should be a similar stick and of

equal length. When in position it is slightly bent, say four per cent. of its length. The frame should be of light spruce, the same size as the cross-pieces. Care must be taken to have the angles right. When the frame is finished, cover loosely with manila paper, so that there will be some concavity on the face of the kite on each side below the cross-stick, so that it will belly like a sail; bind the edges with thin wire which stretches less than string. This kite will fly in a very light breeze. The string, particularly if you have a tandem, should be flexible and strong. In a stiff breeze, and with more than one kite, it is well to have a reel, as in a fishing rod, for hauling in.

The best way with tandem kites is not, as is usually done, to fasten one kite behind the other on the same string, but to hitch each kite by means of a separate string to the main cord. The tail kite will do for tandem, but as the tails are apt to get snarled, it is not so desirable as the tailless kind.

### THE BARREL KITE

As the bird and the butterfly kites of the Chinese can be bought at a low price, I shall not attempt a description of them here, but the barrel kite, which is distinctly American, cannot be ignored.

This kite was tried some years ago by the U. S. Weather Bureau officers in California. It is cylindrical in form, about four feet long, and two feet in diameter. The frame is made up of four light hoops, braced together by four or more thin strips of wood. The twelve-inch space between the pair of hoops at either end is covered with a collar of paper, and the string, by which the kite is held, is attached to a stick, which passes diagonally through the inside of the cylinder from end to end. When this kite catches the wind it lifts quickly and gracefully. As it is easily made, I should like some of my young readers to try it.

I have not seen a barrel kite in a tandem, but I can't see why it should not work. Between kites on a tandem line, flags of same size, and of any designs that may be thought of, may be strung with good effect.

## CHAPTER IV

### SOME OTHER SPRING AMUSEMENTS, NOT FORGETTING STILTS

It is said that hoops are loosing their popularity, but be that as it may, I am very sure they will never go out of fashion with the young folk who delight in a good outdoor run, while at the same time they find work for the eyes and the hand.

Neat iron hoops, with a crooked iron hook to propel, I find much in use, but—and it may be because I am a bit old-fashioned—I much prefer the well-made, wooden hoop with a wooden stick. Why, I've had no end of fun with a wooden barrel hoop, but I could never make the iron barrel hoop respond to my urging.

Some makers have attached bells and other jinglers to hoops, but no boy fit to wear boots cares for these baby contrivances. Small light wheels—they can be had from a retired baby carriage—are excellent things to trundle, and some of them require more skill than does a hoop. Even

tin-can covers or the top of a blacking box may be made to afford fun and test skill.

When I was a boy, and I am sure boys do so still, we used to make buzz wheels out of circular tincan tops. Two holes, about an inch apart, were cut near the center of the tin. Through both openings a string was passed and the ends tied. By trowling, the strings—its ends were held one in each hand—are made to twist. When tight enough, the ends are drawn, and the buzzer starts off with such force that it half winds itself up on the other start.

### THE SUCKER

is a good philosophical toy, for it illustrates air pressure and affords some fun. If you don't know how to make one, this is the way: Get a piece of thin sole leather, about four inches square. Trim off the corners till the shape is nearly round; next lay the leather on a flat substance and bevel off the edges until they are as thin as you can make them.

Now, without cutting through to the under side, cut a hole through the top of the leather, just large enough to force the end of a strong string through. Before using, soak the leather till it is soft. Next find quite a flat stone or brick, force the sucker to the top with your foot, taking care that

there is no turned edge, then you can walk off with that stone, forgetting that it is not the stick of the sucker, but the air pressure —some fifteen pounds to the square inch— that holds the two together.

## STILTS

are as old and as world-wide in their use as marbles, tops and kites. These are the things that set the boy up in the world without making him too proud. The first stilts I ever used—I was brought up on a farm—I cut "with my little hatchet." They were made from two beech saplings, with the section of a branch retained at the same height on each for foot rests, and the length sufficient to come under the arms and be easily grasped. These were rude makeshifts, but they did to start with, and on them I learned to balance.

Much better stilts can be made from sticks or board strips, of sufficient length for grasping with the hands, and with foot rests nailed at any required height from the ground part. In the "Gadabout" stilt you will notice that the stilt above the foot rest is strapped to the leg, just below the knee, which leaves both hands free. Any boy with tools, timber and leather for straps can make "Gadabouts," and the arm stilt is still simpler.

The natives of the Marquesas Islands use very high stilts, and they become so expert in their use as to dance with them and to wear them in wrestling matches. The shepherds on the flat plains in the south of France use stilts to enable them to look over a wide stretch of country, and they become so expert in their use that they can travel twice as fast as an ordinary walker on foot. They carry a long pole for balancing purposes and to take soundings when wading through bog or water.

SPANISH STILTS

differ from the "Gadabouts" in that they reach to the hips, and are strapped securely about the thighs. These can be made at home, but it requires much practice to become expert.

## CHAPTER V

### LET'S GO A-FISHING—SOMETHING ABOUT BAIT

Do not despise the earth worm. Scientists tell us that without this creature's work in preparing the soil, but little of the earth's surface would be fit for cultivation. To its voluntary efforts we owe our supplies of vegetable food, but not satisfied with this, we conscript him that he may help us to catch fish.

Some boys, and men too, make hard work of getting worm bait, but in this, as in everything else, it all depends on how one goes about it.

If you are going a-fishing in the morning, secure your bait to-night. Worms are nocturnal, and they come out of their holes at night, provided it is not too dry on top. The ideal time for scooping them in is about dusk, after a long warm rain. Get a lantern and with it carry your bait can half filled with wet moss or soft moist earth. You will find, if the conditions are

right, swarms of worms along the edges of beaten paths, or in the short grass alongside. Usually the worm has one end of its body in a hole, and as it is very alert, you must catch it before it has time to think, perhaps I should say, to act. For this purpose the bait gatherers will do better in pairs. One holds the can and lantern, while the other seizes the worm. Always grab the worm at the place just above the earth.

Worms, I mean bait worms, are not all of one family, nor is each family equally inviting to fish. The red, fat fellows never come amiss, but the light, flabby kind afford no great lure for even the hungriest sort of a fish. The worm that keeps its tail a-wiggling after he is on the hook, is just the thing. The manure worm, the marsh worm, and a worm found at the root of the sweet flag, all make good bait; but the best of all is the night-crawling earth-worm.

ANGLE WORMS

are best kept in a tin box in which a number of holes are pierced to admit air, but they must not be so large as to let the worms out. Moist, but not too wet wood or other moss is better than earth as a nest for worms, if they are to be kept some time. Keep your bait box in a cool, damp place,

and whenever you want worms, lift the moss and you will find the worms hanging to it.

Soap suds or luke-warm water, if poured over a place where there are worms, will bring them to the surface. If at the same time you pound on the ground, it is said their egress will be hastened.

### SLUGS AS BAIT

The hellgrammite, a black, ugly slug to be found under stones in summer streams, is the most tempting bait you can offer a black bass. After a time the hellgrammite comes to the surface and takes to the air as a beetle, but in that state he interests the naturalist rather than the fisherman.

### GRUB WORMS

are the larvæ of beetles, and may be found about manure heaps and in rotten logs. They make good bait for trout, bass, perch, cats and other fish, and they may be kept, but not for long, in the manner described for worms.

### GENTLES,

or the grub of the blue-bottle fly, are an excellent bait for trout, though they are not good to look at nor pleasant to

handle. These can be cultivated by placing offal in a tin can, and keeping it where it will be safe from rats or mice and inoffensive to the nostrils of passersby. In this the blue-bottles will lay their eggs, which will soon develop into gentles. They can be kept in a box filled with moist sand or bran. If kept too long they will start off as flies.

THE KATYDIDS,

which raise such a racket from the trees, particularly at night and after the middle of July, are rather hard to get, but they pay for the trouble, particularly if you want to tempt pike or pickerel.

BLACK CRICKETS

are always abundant in pasture fields, and are tempting to all kinds of fish, but particularly to bass and trout. They should be kept in a roomy box with chips and stones to hide under at the bottom; otherwise, they will kill and eat each other.

THE GRASSHOPPER

is nearly as good as the cricket, and it is easily captured and kept. They will live for some time in a box filled with green grass.

FROGS.

if not too large, are a standard bait for pike, salmon, pickerel, and bass. Frogs are best caught with a net, but they will take a small hook baited with a bit of red flannel, or they will bite without the hook. Be careful in fastening the frog to your hook not to injure it so that it cannot swim. The hook through the web of the hind feet, or through the skin of the back, is, I think, the best way.

"LIVE" MINNOW

are easily procured, and, on the whole, they make the most reliable bait. A small, fine-meshed net, fashioned like a sieve and handled by two, is one of the best means of collecting minnows. They should be kept in a bucket and taken out with a scoop made of meshed wire, and the water should be frequently changed.

CRAWFISH,

to be found under stones in many shallow brooks, make a good bait. Keep them in a box filled with wet moss or aquatic plants.

By dead bait is meant bits of pork, fresh

beef, or even other fish cut up into tempting morsels for "skittering"; that is, where you cast your line with a sinker, and then haul it in over the water, usually by lifting the pole, walking back, or reeling in; a dead frog or a dead fish is just as good as a live one.

Boys, as a rule, prefer to fish with bait, leaving artificial flies to the seniors. Any small live creature will answer for bait; even mice have been used with good effect, and cheese, if it can be kept on the hook, is eagerly swallowed, in bottom fishing, by carp and catfish. When I was a boy we used to string our catches, through the gills, on a cut switch, but if it can be had, a fish basket is better.

### FISHING TACKLE

should be considered. This is of every variety, from the bent pin fastened to a string, and the string fastened to a stick, which most of us began with, up to the elaborate and costly rods, reels and flies of the wealthy sportsmen. Boys, who seldom use reels, will find the bamboo, which is sold cheap, the lightest and strongest rod for general use.

Hooks are of endless size and variety, as are fishing lines. These must be bought with regard to the kind of fish they are to

be used on, and of these, boys on the ground are the best judges. But let me urge this: When the fishing season is over do not throw your pole, line and hooks carelessly to one side, but clean them, wrap them, and put them away in safety for another season. The boy who does not take good care of the tools that give him pleasure is making a bad preparation for the serious business of life.

# Summer

## CHAPTER VI

### HINTS ABOUT BOATING AND CANOEING

The following rhyme was thought to be very funny when I was a boy:

"Mother, dear, may I go in to swim?
Yes, my lovely daughter;
Hang your clothes on a hickory limb,
But don't go near the water."

I must reserve for "Swimming" a good long chapter, but let me say in all seriousness, before writing anything about boating, that every boy should learn to swim before he undertakes to manage a boat, or even to handle a raft. It is surprising at what an early age this most essential art is acquired, and once learned, it is never forgotten.

It is better, if you are going a-boating, not to wear your Sunday-go-to-meeting clothes. Any old clothes will do, provided they are not too heavy. Shoes are always in the way, more particularly if you should be sent splashing overboard.

A bathing suit, good for a swim or a

row, can be made from an old undershirt, with the sleeves cut short. An old pair of drawers, cut off at the knees and hemmed will do, and these can be fastened to the shirt by a light belt or buttons.

Of course, in such a rig as I have described, you are pretty sure to get sunburned to start off with, and I need not tell you that there is no fun about that. Now, if you stand the exposure for about an hour and then cover up, and the next day try an hour and a half, and so on, the skin will turn at first to a light pink and gradually pass to a brown, without the slightest pain or inconvenience. Or if you begin by covering the exposed parts with sweet oil, vaseline, lard, or mutton tallow, without salt, you will not suffer from sunburn.

As I have said, learn to swim, but in the event of a capsize, even if you can swim, stick to your boat or canoe till help comes, unless you should be so close to the shore as to be quite sure of reaching it, and even then it is best to tow the boat along.

Every canoe should be provided with cork life preservers. They are cheap and can be used as seats, if placed in the bottom.

Every boy, whether living by an inland stream, where a boat can be used, or at the

seashore, should know the names of the different parts of boats. Here is a short definition of the terms that may be of use:

The Bow is the front end of the boat.

The Stern is the rear end.

Fore'ard means toward the bow.

Aft, toward the stern.

The hull is the part of the boat without masts, spars, oars, or rigging.

The keel, like the runner of a skate, runs along the center of the bottom of the boat. It keeps a boat under sail from sliding sideways.

Starboard is the right-hand side of the boat as you face the bow.

Port is the left-hand side, looking in the same direction.

After dark ships and boats carry a red light at the bow on the port side, and a green light on the starboard.

The Rudder is a movable piece of board at the stern, by means of which the craft is steered. It is worked by a lever, ropes, or a wheel. The lever is called "the tiller."

The Helm is that part of the machinery you grasp when steering.

The Deck is the roof of the hull.

The Center Board is an adjustable keel that can be lowered or raised at pleasure.

The Masts are upright poles to support the rigging and sails.

The Yards are poles hung on the masts at right angles to them, from which the sails hang when in use, and on which they are furled or folded when not in use.

The Boom is the movable spar at the bottom of the sail.

The Gaff is the pole or spar for spreading the top or head of the sail.

The Sail is really a canvas kite fastened to the boat.

The Bowsprit is the stick projecting from the bow.

The Rigging consists of the ropes attached to masts and bowsprit.

Stays are strong ropes for supporting the masts fore and aft.

Shrouds are strong supporting ropes reaching from the masts to the sides of the boat.

Ratlines are little ropes fastened to the shrouds by which sailors may climb up or down.

The painter is a rope at the bow, used to fasten small boats as a halter fastens a horse.

Windward means the side of the boat against which the wind blows.

Leeward, opposite side to windward.

Ballast weights of stone, iron or bags of sand used to balance the boat.

A good way to learn about the parts of a boat is to whittle out a small working model. This is a help, but only the actual experience can teach you how to manage a sail and at the same time steer the boat. Of course, you can learn this for yourself, but the better way is to serve an apprenticeship to some more experienced companion.

The first essential to a sail boat is that it should be well made and properly balanced. The second, that it should be carefully rigged, and the third that the man in charge should know just how to avail himself of these advantages.

Sailing before the wind is easy enough. It is in tacking and beating up against the wind that skill and care are required. Jibing, that is changing the boom and sail when tacking, requires the greatest care, particularly if the wind is stiff, and beginners should never be permitted to attempt it.

Where the water is apt to be rough, the sail of every boat should be provided with reefing points—that is little ropes. They are on both sides of the sail. The sail is rolled up from the bottom and tied down to the boom. This is called "reefing" or "shortening" sail.

At nights small boats and canoes should carry lights, as before indicated. It is a

difficult thing to make a sailor through books. The best that can be done is to advise what to do, and still more, *what not to do.*

ADVICE

Don't overload the boat.

Don't carry too much sail.

Don't trust yourself alone in strange waters.

Don't leave your anchor at home.

Don't forget your oars.

Don't sit on the gunwale—the edge of the boat.

Don't alter course too suddenly.

Don't let go the helm for an instant.

Don't mistake caution for cowardice.

Don't be afraid to reef.

Don't let your gear get snarled.

Don't jibe in a stiff wind.

Don't get rattled.

Don't sail with "fool" companions.

Of course, there are many other "don'ts" that will suggest themselves to the sensible boy; among them, "Don't fail to keep your boat pumped out or bailed," and "don't forget to carry an anchor of some sort," and not the least important, "don't leave your eatables and drinkables ashore."

## CHAPTER VII

### SOME SMALL SAIL BOATS THAT CAN BE MADE IN THE WINTER, OR THAT CAN BE BOUGHT WITHOUT MUCH MONEY

There is no small boat so popular or so generally useful as the American catboat. The cat can sail into the very eye of the wind, while before the wind she is a flier, and yet she is not the best sail boat for a beginner. Let me tell you why: First, the sail is heavy and so it is hard to hoist and reef. Second, in going before the wind there is constant danger of jibing with serious results. Third, the catboat has a very bad habit of rolling when sailing before the wind, and each time the boat rolls from side to side she is liable to dip the end of her heavy boom in the water and "trip herself up." When a boat trips up she does not necessarily go down, but she is likely to upset, placing the young sailors in an unenviable, if not dangerous, position. Fourth, when the craft begins to swagger before the wind she is liable to "goose

neck," that is throw her boom up against the mast, which is another accident fraught with the possibilities of serious mischief.

Mr. Dan Beard, the famous American artist and author, and an authority in such matters, thinks the sloop is the most graceful of all the single masters. This is the type of our great yacht racers. Next to the sloop, and very much like it, is the schooner rig yacht. This is a fine boat, but beyond the pockets of boys; however, smaller sizes can be rigged on the same plan, with a jib and mainsail, and they will be found to be both safe and swift.

### THE CONSTRUCTION

Without careful working drawings, which but few boys could manage without the aid of a skilled workman, it would be impossible to show just how a good sail boat can be made. It should be said, however, that the ordinary rowboat may be easily changed into a sail boat, provided a keel is attached, or a lee board provided. The latter, as you know, is a broad piece of board that is slipped, when needed, into a groove along the side of the boat, to keep it from drifting when the wind is not full astern.

Good, light string timber that is easily

worked should always be chosen. See that it is free from knots; if this cannot be had, do not try to build a boat.

After all, unless all the conditions are favorable, and you have great talent for such work, it will be easier to save your money and then buy such a boat as you need, or if you cannot do this, get a carpenter who knows how to build such a craft to make the boat for you.

I have known cases where a number of boys, living near the water, bought a sail boat which they owned in common. Each had the right to its use on a fixed day, though, as they were school fellows, it happened that they usually went out together. The latter is the better way, provided always that when the crew starts off for a cruise it is distinctly understood that one of the number is to be the captain for the time and is to be obeyed accordingly.

It was told when I was a boy, but I doubted the story then and I don't believe it now, that when migrating squirrels, that do not take kindly to the water, reach a wide stream they secure bits of wood or bark large enough to float them, then with their tails erect to catch the wind they sail gaily across.

The natives of North Australia, the most primitive people of whom we have any

knowledge, use logs, singly or lashed together with vines, to cross rivers and arms of the sea.

### CANOES

Our own American Indians were more advanced. Even the rudest of them had learned before the coming of the white man to hollow out the log by means of fire and to shape it with stone axes into the form of the present canoe.

The birch-bark canoe, made by the Indians of the northern rivers and lakes, is really a work of art. It is a model of lightness, and when we consider its frailty, and then the way in which it can be managed in the most turbulent currents, our admiration is divided between the craft of the maker and the surprising skill of the man who handles the paddle.

The ancestor of the graceful yacht and of the great ocean steamers, that carry their thousands with as much comfort as if they were on shore, is the rude canoe or raft of our own forefathers.

It is from these forefathers that we have inherited our love for outdoor life, for fishing and for water, and the instinctive desire to hunt which is inborn in every healthy boy.

## EVOLUTION

In the evolution of water craft, the vessel propelled by pole, paddle or oar must have preceded the use of sails. The former required more strength and the latter more skill. But no matter what science and art may do to make sailing more secure and comfortable, the boy, particularly if he be country bred, and so forced to be more self-reliant, will have a try at the raft, dingey or canoe before he aspires to anything more elaborate and expensive.

I like work that develops the ingenuity of the boy. On a long mill pond out in Kentucky—this was some years ago—I came upon some boys who were managing a raft propelled by a sail made from two bed sheets. The body of this strange craft consisted of four logs, sharpened at the bow and of varying length, so as to present a wedge point to the water. Across the logs cleats were nailed that kept them together and answered for a deck. A stout pole, secured in front, served for a mast and a smaller pole, with a piece of board nailed to the end, acted as a rudder.

On board this strange craft there were four boys and a dog, the latter, judging from his barking, quite wild with the fun of it. Before the wind this sailing raft

made good time, but as the craft refused to tack, the boys lowered the sail and poled back for another try, just as boys clamber up hill in winter for the sheer joy of coasting down.

### OTHER BOATS

We have learned from the South Sea Islanders how to build and manage a catamaran. This consists of two canoes or long thin boats, placed parallel and joined together by wooden strips, which also answer for a deck. This craft can be rowed or driven by a sail, placed well forward. Its great advantage is its stiffness, for it cannot be upset in an ordinary sea.

The dingey, shaped like the bottom of a flatiron, with a blunt stern and a sharp nose, is the boat with which the boy in the country first makes acquaintance. It is propelled by two oars, usually fastened to the sides by pivot row-locks. This is a handy boat for getting about in, but it is quite impossible to learn the art of rowing from such a mechanical contrivance.

### ROWING

Properly done, there is no single exercise that develops the arms, chest, back and leg muscles as does rowing. Whether your boat is a dingey or an expensive row-

ing shell, always enter it, if the purpose is pleasure and exercise, with the determination to get the best out of it.

Be sure that your oars are of the right length, so as to avoid the contact of the ends. Have the row-locks so arranged that the oars will turn or move in any direction without creaking or strain. The braces for the feet should be movable, so as to accommodate any length of leg, and the seat should not be too high.

There are many styles of rowing, none of which may be discussed here. It is well at the start to learn how to "feather" your oars, whether you are handling one or two. This consists in bringing the edge of the blade parallel with the water—a splendid exercise for the wrists—then turning the blade as it reaches the water, and with all the strength of every muscle drawing the oars steadily, never jerkily, till the stroke is finished. The one purpose is to keep up a uniform speed, and this can be done only by a uniform stroke.

Endurance, rather than mere brute strength, is the thing to be kept in mind in rowing, as in everything else requiring effort. Always have in reserve a stock of endurance to be used should occasion require. Never start out with a dash, even if you are in a hurry, but strike a gait that you can keep up without making severe de-

mands on that most essential of all the organs—the heart.

## THE CANOE

The canoe, as you know, is managed by a single paddle, though I have seen, up in some of the Adirondack lakes, canoes that were driven by oars. But, excepting in name and shape, these were not canoes; they were long, narrow boats.

The Indian, and the white man who would learn the fine art of canoeing, sits in the bottom of the canoe and close to the stern end, though in fact a canoe is all stern and all bow, sailing equally well no matter which end is in front. The Indian does not paddle on one side and then on the other. He uses, as a rule, the left hand side. He grasps the blade right hand at the top, left hand a foot or more down, and then reaching the paddle forward, he digs it into the water with a strong, firm grip, keeping it perpendicular and drawing it aft. When the paddle is abreast his erect body, he suddenly turns the blade so as to bring the flat against the body of the canoe. This acts at once as a lee board and a rudder. With these graceful movements the canoe is managed from one side, and can be made to go as straight as a bullet to a bull's-eye.

Unlike the dingey or flat bottom boat, the canoe is easily upset. Therefore the paddler and his passengers, if he have any, must sit on the bottom. Never rise unless you are alongside a float or dock. The boy or the man who "rocks the boat for fun" is either idiotic or insane; in either case he is unfit to care for precious human lives. Now, the ordinary boat will stand a little of such fooling, but the canoe refuses to be rocked. At the first insult of that kind it very properly dumps out its occupants.

### THE CANVAS CANOE

The lightness of the birch bark canoe is not the least of its advantages; but as birch bark is not available in the settled parts of our country, a substitute was desired, a substitute quite as light and of a material that would not be seriously injured by dents. This was found in a canvas cover over a light wicker, collapsible frame.

A frame can be made of bamboo, rattan, willow or light strong pieces of pliant wood such as spruce or hickory. The pieces can be joined with screws or wire, never nails. The length as to breadth to insure safety should be as eight to one, though many canoes are narrower.

With tools and material, both of which

are easily obtained, any boy, with patience and some skill, can construct a frame to his own liking. The frame must be covered with a light, strong canvas, cut and sewed to make a good fit.

When this is done, paint the canvas inside and out, taking care to paint under the frame, which can be removed if necessary. A second and even a third coat of paint may be needed. Canvas covers should be made for the aft and front decks, under which a small tent or camping appliances can be carried.

In a canoe of this kind, fourteen feet long and eighteen inches wide, three young American students made a voyage from the head-waters of the Rhine to Holland and the North Sea. They made the canoe in Paris, and carried it in a bundle to Switzerland. This vessel held a complete camping outfit and provisions.

## CHAPTER VIII

### IF YOU CAN'T SWIM, LEARN AT ONCE—HELPS TO LEARNERS—CONFIDENCE IS THE THING

Every animal, except man, can swim naturally on finding itself in the water for the first time, for it takes a position nearly the same as if it were on land and walking.

The physical structure of man, the lord of creation, is not so favorably adapted for his making his way through the water, his head being much heavier in proportion to its size than his trunk, while he has to make an entirely new departure, in abandoning his customary erect position, and has to adopt movements of the limbs to which he has not previously been accustomed. Still, the specific gravity of the human body, particularly when the cavity of the chest is filled with air, is lighter than that of water, in proportion to the obesity of the individual, stout people being able to float more easily than those of spare build.

There are thousands and thousands of boys in this vast country who have never seen big rivers, like the Ohio and Mississippi, or beheld the broad ocean, with its white, sandy beach and small, quiet bays, or the great blue lakes, and whose only chance to swim is in the deep holes of some small stream, a mill-pond or small lake.

Beginners are just as liable to meet with serious accidents in such places as in the large rivers or the salt sea. For it must be remembered it is not the width of the water, but its depth, that troubles a beginner.

### HOW TO LEARN

Beyond the practice that makes for perfection, the only other thing necessary for swimming is *confidence*. Every man, woman, and child—even if never in the water before—could keep afloat if he, she or it had the required confidence, but as they have not this confidence, the question is: "How can it be acquired?"

There is an old saying, "Familiarity breeds contempt." While, like many other home-made proverbs, this is only partly true, there can be no doubt but that familiarity makes for confidence. The new recruit may be as strong and brave as the

veteran soldier, but the lack of experience makes him nervous and unreliable under a fire which the older soldier faces without a visible tremor of eye or hand.

It is difficult to get confidence if you begin by getting "awfully scared." Every boy, and every girl too, should know how to swim, and both are more than eager to learn. Now, the boy who can swim, and who is properly proud of the fact, will, if he stops to think, recall a time not very far distant when he lacked confidence and could not keep himself afloat for a second. And he may recall how frightened he was when some foolishly thoughtless friend or heartless bully tried to duck him, or to push him beyond his depth.

### BE KIND

The first hard fight I ever had was with a big boy—it is the conflict I look back at with the most pleasure—who was holding a smaller boy under the water. We fought quite naked, and—well, I licked the bully, and never after that did he try to frighten small boys in that swimming hole.

Boys will be boys, but even then each should have in him much of the man he hopes one day to be. Therefore I say, be a protector, a guide, philosopher and friend

of the younger boys, and if you know more than they do of anything, and they want to learn, teach them in a cheery, manly fashion, if you have the time. Avoid conflicts, but if you must have one, see to it that the bully will not be eager for another such meeting.

### GOOD ADVICE

Before saying more, let me give you another bit of good advice. Never enter into water the depth of which you are not familiar with, unless you can swim, and in any event do not venture far into strange water unless you are accompanied by a companion as skillful as yourself.

Big boys, as a rule, are glad to help the smaller ones, and in this way they teach by assuring confidence and showing by example how the thing can be done.

Planks, floats, bladders and other artificial contrivances are advised by some, but after swimming for years in nearly all the waters of the world, I cannot endorse such doubtful assistance. As one cannot actually swim when supported in this way, it is far better to start in without them.

There must be a beginning, and it should be made in the easiest and most sensible way.

### A GOOD WAY

With your back to the shore and the water almost up to the armpits, bend your knees till the water nearly reaches the chin. Then gradually throw your bead back as far as it will go, until the base of the skull is immersed and the water covers your ears. Now stretch your arms backwards behind your head, at their fullest extent, the palms uppermost and slightly hollowed. Take a full breath, and swelling out the chest, give a little push off the bottom with both feet. Keep your mouth shut, as, perhaps for an instant only, the water will ripple on your face as the head takes its position, and then you will find your legs, which must be stiffened and separated. In this position you will float for a second, moving the while towards the shore. Then the water will dash over your nose and mouth, but, before it chokes, regain your feet and after a good long breath, try it again.

### FRANKLIN'S WAY

Another capital dodge is that recommended by Dr. Franklin, in which the buoyant power of water is still more strikingly exemplified. Procure an egg or lump of chalk of an easily handled shape, and,

when the water is up to your chest, face the shore and let the egg drop in front of you. Now take breath, shut your mouth, but not your eyes, which you can open and shut as easily in the water as out, duck under, and try to pick up the egg. You will find that while your legs rise from the bottom you will have to struggle with your arms to get down far enough to reach the "egg," owing to the great resistance offered by the water, and two or three attempts may be necessary to accomplish your object. You can come up at any moment by depressing the feet, and, as you face the shore, your struggles are working you into shallower water, so that the experiment is a safe one enough.

You have now gained confidence, which is half the battle, and the next thing to be done is to try to move on the surface of that element which you have proved capable of sustaining you when motionless.

It is certainly easier to float when the body is moving through the water than when it is stationary, on much the same principle which sustains the oyster shell that skips along the surface of the sea, until, the impetus given it by the thrower being exhausted, it sinks to the bottom. In like manner the pace acquired in swimming helps to sustain the body.

If you can keep afloat while you count five, or long enough to inhale the breath

once, the battle is won; and while you may not be qualified to enter for the long distance championship, you can modestly call yourself "a swimmer."

Books give us valuable information about how to do many things, but when it comes to swimming, all the book can do is to advise, and if the author gives us his own experience, as I am trying to do here, it must be of great help.

## CONFIDENCE

I have said that in learning to swim confidence is the great essential, but while still sticking unchangeably to that, I will add that perseverance is a good second. Never get discouraged. Stick to it. Repeat over and over again either of the two exercises before given. Each time you will find them easier. Then suddenly, and before you know it, you will be keeping yourself afloat. What if it is only for a few seconds and you have not moved a foot? Don't give up. "If at first you don't succeed, try, try again!" That's a motto you should heed, particularly in learning to swim.

There are a great many strokes in swimming, but pay no attention to these at the start.

## STROKES

When I was a boy, and I presume it is so still, there was a stroke known as "dog fashion." As a matter of fact, it might as well be called the fashion of any other animal, for all quadrupeds swim exactly as they walk, that is by moving the feet alternately forward; and this is the very way one is inclined to try it at the start.

If you can go dog fashion with some confidence, it will be well to learn the "breast stroke," which, though not the fastest, is perhaps the most general, as it is the most graceful, among non-professionals. But first a word as to the management of the legs.

## THE LEGS

While the arm movements can be greatly varied, there can be, in the nature of things, no such variation in the action of the legs. It is said, and truthfully, that the motion of the legs of a human swimmer are much like the motion of a frog's hind legs when swimming. That is, the boy draws his legs up simultaneously and kicks them out in the same way, but in so doing he is not imitating a frog, for if he works the limbs together there is no other possible way in which he can do it under water. The frog's

breast stroke is another story. A man swims very much as does a frog, though he cannot do so well under water as the amphibian. The legs are kicked in the same way and there is the same motion of the arms of one as of the forelegs of the other.

Some swimming teachers believe that the main reliance is the legs, but this has not been my experience, and I have seen many swimmers in many waters. The legs steady the body, but it is the arms that make for speed as well as for steering, though on the back it is the legs that do the business.

### HOW TO DO IT

Bring your hands together under your chin, with the palms down, fingers straight, close together, and pointing in the direction you are about to move. Next shove the two hands straight out in front of you, keeping your thumbs touching. As your hands are pushed forward, kick backward with your legs, as previously described. When the knees are straight, the legs will be spread wide apart. Bring them together, and, if you time this properly, your position will now be that of an arrow, the point being your extended hands.

While the arms and legs alike do their share in the propulsion of the body, the

legs perform by far the most important work, and the importance of a good "kick" cannot be too strongly urged. Though the action of the soles of the feet upon the water helps the "drive," the momentum is also given by the "wedge" of water embraced and driven backwards by the action of the backs of the thighs and calves, as they almost come together at the completion of the leg stroke. Hence, the wider the stretch the more powerful the "drive," and the beginner should try to rival as closely as possible that acrobatic performance known as "the splits" when trying to master the kick. The action of arms and legs is alternate; that is to say, when the legs are making their sweep, the arms are thrown forward to their fullest extent, thus helping to sustain the upper part of the trunk, and serving as a prow or cutwater; then, during the first part of the arm stroke, the legs, almost touching after finishing their work, remain stiff and extended, so as to offer as little resistance as possible. These positions are but momentary, but their rigid observance is necessary to ensure pace with the least expenditure of force.

### THE ARMS

The breast stroke will require some practice, and this can be helped by out-of-the-

water exercise. Close your fingers tightly, but not so as to be very conscious of the effort. In this position, bring them up till the chin rests on the two thumbs, which are side by side and parallel. Next separate the hands, fingers still close together, shoot them edgewise as far in front as you can reach, then with the flat palms and closed fingers to the resisting water, draw them smartly back, like oars.

For the second stroke, draw the arms edgewise to the first position and repeat as often as may be necessary. This exercise will strengthen the arm and shoulder muscles and greatly facilitate the movements when you come to use them in swimming.

Be careful always to bear in mind the following rules: Keep the head thrown back so as to clear the mouth and chin. Try to swim as low as possible. The lower and the nearer level the plane in which the body lies in the water, the less the waste of power and the greater the speed, so that all rising and falling must be avoided, and nothing seen below the chin. Always keep the trunk steady and the spine hollowed, avoiding all squirming, wriggling and bending, while the motions must be made steadily, avoiding all hurry. Exhale your breath when the hands are extended in front supporting the head, and inhale as they are brought back—an action which ex-

pands the chest and gives you almost instinctively the signal for taking breath, which should be inhaled through the nose as much as possible.

# CHAPTER IX

## METHODS OF SWIMMING, FLOATING, DIVING, AND SOME GOOD WATER GAMES

Some girls, after they have learned the alphabet of music, and are able to play elementary scales on the piano, are eager to surprise themselves and annoy their listeners by starting in to play tunes, if indeed they are not ambitious to tackle grand opera. But the wise learner is satisfied to take one step at a time, and before going on he is sure that he can do the previous steps reasonably well.

I am old enough to have boys of my own, still I hope I shall never be so old as to forget my own boyhood, nor to feel that much of the boy nature does not still keep with me; and this is why I advise my boy friends who read this to learn surely whatever they undertake; in this case it is swimming.

After you can manage the breast stroke well, try the side stroke, which you will find more speedy, but it has its disadvant-

ages in a long swim, by reason of the tension thrown on the muscles of the neck in keeping the head thrown so far back from its normal position, while the chest and shoulders, square to the front, offer considerable resistance to the water. History has not handed down the name of the founder of the side stroke, but he deserves canonization equally with the man who ate the first oyster. Nature evidently intended man to swim on his side, as in this position the body moves more easily in the water, to which it offers less resistance, while the action of the arms is not so fatiguing, and the head is supported by the water at its proper angle to the trunk.

There is no arbitrary rule as to which side you shall swim on, left or right being a pure matter of choice; but while I think the left is preferable, as it gives greater play to the right arm, the right is the usual side "put on" by the majority. The great thing is to be able to swim equally well on either, as this enables you to keep your face to the breakers in a rough sea on whichever tack you lay your course.

When you have mastered this stroke you will seem to move forward continuously, and not in a succession of jerks, as with the breast stroke. The natives of the South Sea Islands, who are, to my thinking, the best swimmers in the world, use this stroke

for a long, steady swim, and I have been surprised at the speed they make and the length of time with which they can keep it up without a sign of fatigue.

### RACING

The racing stroke is effective for speed, but it soon wears out all but the strong, expert swimmer. In acquiring it you must remember that pace is the great desideratum, and, consequently, rapidity of action is requisite. To gain this you must combine two movements in one, by striking with the propeller on whichever side you swim at the same time as the feet, the sustainer acting in the same manner as before. As the legs are brought up for the kick the propeller is lifted clear of the water, the arm being slightly bent in a graceful curve, and thrown forward in an arc to its fullest extent, the hand being held in the scoop-like position it maintains in the water. Now kick, and bring the propeller simultaneously downwards and backwards, with a bold and vigorous sweep, until it reaches the thigh when the elbow is bent, drawing the hand upwards to be thrown forward again. As this stroke is being made, shoot out the sustainer quickly forwards, and while this arm is pulled in towards the body the legs and propeller are quickly brought into ac-

tion for the next stroke. The learner will have to count one, two, only in effecting this movement, as, when the propeller and legs are striking, the sustainer is shot out, and *vice versa.*

### OTHER WAYS

Swimming on the back is very easy, once the confidence is assured. In this method the hands are folded on the breast, or still better, kept under the water and close to the sides. This done, the feet are drawn up together, as in breast swimming, and then kicked out together. As the arms are the chief driving power, swimming on the back is at best but a slow, jerky method of proceeding, but if one has not learned to float, it is a good way to rest for a bit in a long swim.

Some swimmers, particularly those that are narrow chested or lank and lean, can never learn to float, though once you know how, it is easier and far more comfortable than "falling off a log."

At first, when learning to float on your back, and by the way that is the only way to do it properly, you will find yourself sinking slowly, feet foremost, until you seem to be standing up, and must use some exercise to keep afloat; but you can learn.

Before lying flat on your back, inflate

your lungs fully; as you do so you will be surprised to see how you seem to lift out of the water. Now, before your lungs are exhausted, for you will sink as they empty, breathe deeply again and exhaust slowly as before, keeping your arms by your sides and your legs close together and extended.

Don't expect to float like a life boat at the first try, for you are not built along life boat lines; but if you stick at it, and make the experiment at least once every time you go in swimming, you will float well before the summer is over.

### GOING IN

If you know the water, the best way to enter it is by a quick plunge or a straight dive.

To walk into the water and "duck" is rather an ignominious proceeding, only to be excused in the novice or the lady bather we see at our watering-places bobbing up and down at the end of a rope. The swimmer should not rest content until he is able to plunge in like a workman; but first, a word of caution! Never attempt to dive unless you know that the water is deep enough for the purpose.

Many serious accidents have occurred from this mistake, notably when bathing at

sea. An incautious plunge from the ship's side into the sail bath extemporized overboard to ward off any danger from sharks has resulted fatally to the rash swimmer, and at all times danger attends rash plunging.

It is, nevertheless, astonishing into what shallow water an expert can fearlessly dive from a height, his arms and head emerging almost before the feet have disappeared beneath the surface. The diver needs to be very quick of hand and eye, and many accidents attest the fact of the game not being worth the candle.

I have seen bathers extend the arms over their heads and fall forward, which generally entails a smart tingling of the chest and stomach, as the body is almost certain to drop flat on the surface.

A very neat plunge, which requires practice and a little pluck, is made by standing erect on the brink edge or board and, instead of springing from the board, allowing the body, kept rigid, to fall forward until it attains the proper distance, then suddenly throw up the feet and plunge in like an arrow and without a splash.

### UNDER WATER

It requires some practice to swim under water, but you can soon do it. It is well

to learn how to keep the eyes open under water. This is no more difficult nor painful than it is to keep them open in the air. This skill may be of great use in locating a body that has sunk for the last time. Many such cases have been brought up and restored to consciousness, under proper treatment.

## WATER GAMES

are not as many as land games, but some of them afford good sport. One of these is "Water Bladder," which requires good swimmers, at least they must not be afraid of the water.

To play this game place two places, for goals, at proper distances where the water is overhead, and mark each with crossed rods, the tops about a foot out of water. Divide the party into two sides and take your positions as in an old-fashioned game of football. At the word "Ready," the umpire, who is on the shore or at some convenient point, throws an inflated bladder between the opposite sides. The object of the players is to send the bladder over the enemy's goal, and the rules are very simple. It is foul to interfere with an opponent by putting your hands on him, it is foul to use more than one hand in handling the bladder, but you may swim in front of a man, dive under him, in fact "interfere" in every

way you can. Each goal counts one point, and five points make a game.

### TUB RACES

One might suppose that this would come under the head of boating, but one would be mistaken, for it properly belongs to swimming, as any one who has witnessed or taken part in such a race will tell you.

Each contestant supplies himself with an ordinary washtub. At the word "Go!" he places it in the water, climbs in as best he can, and paddles with his hands for the taw line. This is great fun, and if one out of ten gets through he may count himself fortunate. He may not succeed a second time and will not if the others can help it.

When I was a boy we had no end of sport in running and diving from a spring-board. This, as you know, is a long, strong board—the longer the better—one end of which is firmly fixed in the bank and weighted with logs or stones; but no matter how weighted you must see to it that it does not get out of balance.

The free end projects over the water at any desired angle, and care must be taken at the start to see that there are no stones

or snags from which harm may come below the surface.

It would be difficult to find anything more graceful than a lot of slender boys speeding up this spring-board and shooting out, feet first or head first, into the river, pond or swimming pool.

When a boy can turn a somersault from the end of the board, and come down feet foremost in a clean-cut way, he may be said to be an expert.

Contrary to the belief of those who have not tried it, it is much easier to turn a back than a forward somersault, though neither can be achieved without some practice.

In the back somersault great care should be taken that the diver leaps far, so as to be free and clear of the board when he turns; otherwise his head may strike with bad results.

As I have said before, diving may be useful in saving life, or in finding objects that have been lost in the water. In such cases it will be necessary to keep the eyes open, otherwise you will be much like one groping in the dark.

The tendency in diving is to keep the eyes closed. There is a feeling that if they are opened the water will hurt them, or that its touch will be painful; but this is a great

mistake. If the water is clear, and clear water is the best to swim in, one can see under water nearly as well as on top and the eyes are in no way affected.

Pearl divers in the Persian Gulf sometimes stay under water for minutes at a time, and if they could not keep their eyes open while searching for the pearl shells, their descent would not profit much. The eyes of these people are never injured.

In the Bay of Apia, in the Samoan Islands, I have seen native boys diving from a canoe under the bottom of a great ocean steamer. On one occasion a boy brought up from a depth of fifty feet a silver coin that had been tossed overboard to test his skill.

### CLOSING ADVICE

Never go into the water when at all warm. The best way to enter is to plunge or dive in.

Never go in more than twice a day, even if a fresh lot of boys come down to "dare" you. Learn to laugh at dares.

Never stay in the water more than half an hour at a time, unless there is an absolute need for your so doing. You cannot learn too early that good health is easily lost and hard to regain.

## CHAPTER X

### HOW SIDES ARE CHOSEN IN GAMES

When teams from different clubs, or schools, or places meet to try their skill in some game requiring skill and endurance, there is no occasion to "choose sides," for that has been done in advance. But when boys of the same school or association meet for a game, it is necessary that the leaders should be decided on in advance, as also the means by which the respective sides must be chosen.

When two boys are contesting, one may pick up a pebble and ask, "Which hand is it?" If the guess is right, the boy making it is "It." "Drawing straws" is another method of choosing sides, and it is often used as a game in itself.

From a handful of grass, one of the boys selects as many pieces as there are to be players. One of the blades is cut off so that it will be much shorter than the other pieces.

"Straw holder" arranges the straws so

that the top ends protrude from his closed fist, either perfectly even or irregular in their height above the hand, according to his fancy. It may happen that the first boy to choose a straw will select the short one. This in a measure spoils the fun, and to guard against it the lads are often made to stand up in a line and each one in turn pulls a straw from the fist of "Straw-holder." Each one is expected and required to put it behind his back immediately and keep it there until all the boys in the line have straws behind their backs.

Then "Straw-holder," holding up the straw left in his own hand, cries, "Who is short straw?" At that each boy produces his straw and compares it with the others.

Another method is to place a button, pebble or other small object that can be easily concealed in one hand. Then, with both fists closed, place one above the other and ask, "Which is it, Joe; high or low?" If the empty hand is chosen the boy goes free. So it goes on, the last holder of the stone being it, for the one making the unlucky guess has to hold the object.

"Odd or Even" is often the method by which the one having the first choice in choosing shall be selected.

The method is as follows: One boy selects at random a handful of pebbles, marbles or other small objects, and closing his

hand, asks, as he holds it out: "Odd or even?"

If the other boy should say "odd," and on count the objects prove to be even in number, he has lost, and the other boy has first choice; or if it is a counting-out game, the one who guesses right goes free and the last is "It."

A very old way is to toss up two coins, sometimes boys carry such things, though never for long. "Heads or tails!" cries the tosser. If the other guesses he is free.

Sometimes a stone or a chip, moistened on one side is used, and the boy who tosses it up shouts, "Wet or dry?"

This is simply a variation of heads or tails, or odd or even. Each section and each crowd of boys has its own way of choosing or counting out, and in this case the best known is best.

## CHAPTER XI

### SOME INTERESTING FACTS ABOUT COUNTING-OUT GAMES AND THE RHYMES USED BY PLAYERS

When children indulge in counting-out games they are quite indifferent to the fact that since the infancy of history and in every land, civilized, barbarous and savage, other children have played the same game, in much the same way, and have used rhymes that are curiously alike. Some learned men use this fact to prove the unity of all races.

Mr. Beard, to whom I am indebted for much, has collected many of these rhymes. It will interest boys to compare some of them with those he already knows.

Sometimes it happens that there are more boys than words in the counting rhyme, or the counter foresees that he himself will be it. In both cases he adds to the verse something like this:

One, two, three,
Out goes he!

Often he will add a whole verse and dialogue as follows:

One, two, three,
Out goes he,
Into the middle
Of the deep blue sea!
Are you willing to be IT?

Here is a rhyme that has in it a distinctly American twang:

Ena, mena, mina, mo,
Catch a niga by the toe,
When he hollers, let him go,
Ena, mena, mina, mo.

Here is another familiar jingle:

Anna, mana, mona, Mike,
Barcelona bona, strike;
Care, ware, frow, frack,
Hallico, ballico, we, wo, wack!
Huddy, goody, goo,
Out goes you!

Eatum, peatum, penny pie,
Babyloni, stickum stie,
Stand you out there by!

This is Irish:

A lirripeg, a larrapeg,
A bee, a nail, a stone, a stack,
A bonny Billie Gelpie,
A Belia-bug, a warum rock,
Crib-i-stery, Hick!

The little Turks and Armenians use this count:

Allem, Bellem, chirozi,
Chirmirozi, fotozi,
Fotoz, gider magara,
Magarada tilki bash,
Pilki beni korkootdi,
Aallede shooullede Edirnede,
Divid bashi
Ben Ilayen kehad bashi.

French youngsters use this rhyme:

Un, deux, trois,
Tu ne l'est pas;
Quatre, cinq, six,
Va-t'en d'ici!

One, two, three,
Thou art not "it";
Four, five, six,
Go away from here!

Here is how Dutch boys do it:

Een, twee, sen kopje thee;
Een, klotje er bij,
Af ben jij!

Along the Rhine this is popular:

Ene, tene, mone, mei,
Paster, lone, bone, strei,
Ene, fune, herke, berke,
Wer? Wie? Wo? Was?

## CHAPTER XII

### DO YOU KNOW ALL ABOUT THE GAME OF TAG?

The poet Pope says, "The proper study of mankind is man." If he did not mean this to include boys, then I don't quite agree with him, for I have found boys and girls, too, be it said, as a rule, far more interesting as objects of study than the average grown-up.

I have always liked these stanzas from Hood's fine poem, "The Dream of Eugene Aram":

"'Twas in the prime of summer time,
An ev'ning calm and cool,
When four and twenty happy boys
Came bounding out of school;
There were some that ran,
And some that leapt,
Like troutlets in a pool.

"Like sportive deer, they cours'd about,
And shouted as they ran,
Turning to mirth all things of earth,
As only boyhood can."

If the boys had not already decided on a game, it would be safe to wager that the

first thing they started off with was the old and ever-popular game of tag.

I have seen boys, and girls, too, playing tag among the Indian tribes of Arizona. The young and ever lightly-clad Mexicans delight in it, and the Chinese and Japanese youngsters never grow weary of a game needing so little in the way of equipment, and which is so easily started, but not so easy to give up, when the spirit of the game has taken full possession of the players.

Although so simple, there is never monotony in tag. If you don't like one form you can try another, and there are certainly a lot to choose from. One can have brick, wood, iron, tree or any other kind of object tag, the principle being that so long as the pursued has his hand on the object decided on in advance, he cannot be touched.

In what is known as "Cross Tag," the boy who starts the game tags another, who at once starts in pursuit. Now, if another boy darts across "its" path this second boy becomes the object of pursuit, and so he continues until he has made a capture and is free to join the field.

### PRISONER'S BASE

One of the oldest, and I think the most general and popular of tag games, is called

now, as when I was a boy, "Prisoner's Base."

In this game the two leaders choose sides. This done, two objects—they may be walls, trees or posts that stand some distance opposite each other—are used as goals. Before these goals, the two armies are drawn up in opposing lines. Then the captains, or it may be others, lead off.

One of these defies the other to meet him. After this the armies charge, but the purpose of each is to avoid being tagged by the other side, while it tries to tag or touch as many of the opponents as it can.

Every boy touched is regarded as a prisoner and must go to the base provided for the purpose, which is usually the goal of the other side, where he must remain till the game ends or he is released.

The prisoner is guarded, but if he can escape and reach his own side, without being touched, he is free, or if one of his own side succeeds in touching him, he gains his liberty.

When all of one side are prisoners the game is over, and the winners deserve their success, for they have had to fight hard for it.

### THE WOLF

Another variation of tag is called "The Wolf" in some places, and in others,

"When do you eat?" But no matter the name, it is good sport.

This is how to do it. A good sized piece of paper—any paper that shows a pencil mark will do—is torn into as many bits as there are boys. Each bit is marked with a number, showing some hour of the day. After every player has his marked paper, there must be one piece left. The last piece is marked with a number the same as that on one of those already given out.

There are only twelve hour marks on the clock, but if there are more than twelve players, the extras can be given by half hours, like half-past one.

Now, under one of the hour or duplicate numbers, mark a cross like X. No one but the marker knows the numbers. Each boy, as he draws, looks at his own number, but he must keep it a secret. The numbers must be drawn from a hat, without looking. The undrawn paper belongs to the marker, and he is the boy who holds the hat.

The boy who has drawn the paper marked with the X is "it," and so is regarded as the wolf. He goes off some distance, while the huddled "sheep," as the other players are called, decide what time of day they shall each represent.

When all is ready the wolf calls out in chilling, hungry voice:

"I eat no meat but woolly sheep,
My appetite is good;
I thirst, I think, their blood to drink,
If caught within my wood!"

On hearing this, the sheep set up cries of fear and run to form a circle about the wolf. If the ring is not complete before he gets through the rhyme, he is free to seize any boy who is not holding the hands, on either side, of two other boys.

If the ring is formed and no sheep captured, the sheep circle about the wolf, chanting this song:

"Wolf! Wolf! Wolf! with the brown ear,
Tell us what hour you dine
On one of the sheep assembled here!"

The wolf selects his own hour. If he answers "One o'clock," the sheep bearing that number darts out of the ring with the wolf after him. If this sheep circles the ring three times without being caught, he is safe and takes his old place. The same hour cannot be selected again until all the others have been called.

When the wolf guesses the number corresponding to his own, he does not have to pursue, for his double becomes the wolf, and he is changed into a sheep.

After the game has gone on so far that the number of each is pretty well known, the boys can change numbers without the

knowledge of the wolf, and this adds greatly to the sport.

### BULL IN THE RING

Another variation of tag is popularly known as "Bull in the Ring." The bull or "it" is a position to be sought after in this game. The bull can be selected in any one of the ways I have suggested, or in any other way that may be decided on.

When all is ready, the boys form a ring by joining hands, with the bull penned in the center.

This done, the bull seizes a pair of the grasped hands, and asks: "What is this lock made of?" One of the boys replies, "Steel." "Steel is strong. What is this lock made of?" asks the bull, as he grasps another pair of hands. "Bronze," may be the answer. "And this?" "Copper." The next reply, "I can break copper!" shouts the bull.

He then makes a feeble effort to break through, or it may be that he is doing his best, but he knows he cannot get out in that way. Suddenly he wheels and makes a dash for a part of the ring which he thinks is weakest. If he gets through he dashes away, with the others at his heels, and the first boy that tags him is "it" for the next game.

## CHAPTER XIII

### "I SPY" AND LEAP FROG, THE EVER-POPULAR GAMES

Like tag, "I Spy" needs no apparatus and no great study. Any boy with keen eyes and nimble legs can play the game better than a man four times his age. Of course, "I spy" is not a game of solitaire. It needs at least two boys, but it will be more exciting if there are five or six times that number; the more the better.

You know how to select who is to be "it." This done, and a goal or home selected, "it" remains at the goal and counts up to one hundred as fast as he can, and this is usually so fast as to eclipse the lightning calculator whom Barnum charged an admission to see and hear.

While "it" is counting, with his eyes closed and his head bent, his companions start off and conceal themselves in the neighborhood as best they can. When the count is up, and it is all too soon for the half hidden boys, "it" goes out to find them.

Any hider who can run and touch the goal before "it" shouts: "In free," and he is free. But if "it" spies a boy, then shouts the boy's name and reaches home first, that boy is caught.

The game continues till all are free or caught. If "it" fails to catch any, then he must be "it" again for the next game. If he is successful, then the first boy caught is "it."

The best time to play "I spy" is in the evening, for the dusk is the best time to hide, and in the dim light it is harder to recognize the boys. If "it" calls a boy by another's name, then he is free for that game. To deceive "it" the other boys often change hats or turn their coats—an act usually frowned down on, but quite permissible in this game.

If the last hider gets in undetected and shouts "Freeings!" all go out for another hide, and "it" stays in his old position.

There are some varieties in this game, but they are not so different from the one given as to make them worth describing.

### LEAP FROG

is distinctly an athletic game, but it nevertheless requires that quality of brains called "judgment." The boy who does not know

leap frog has something good to learn, and it is for him I am writing this.

One boy turns his back to the player and, bending his head low, rests his hands on his knees. This is called "Giving a back." The other boy places his hands on the first boy's back and leaps over him, by straddling his legs wide apart on each side like a frog. The second boy then assumes the stooping posture, and the third boy leaps over the first and second, and the fourth over all three, one at a time, of course.

This goes on until there is no boy left who is not stooping. Then the first boy's back straightens up and he goes leaping over his fellows and again gives a back, while the second follows, and so on until they are all tired and the game ceases.

### FOOT-AN'-HALF

The foot mentioned in this title is not the foot marked on a United States standard rule, but a boyish foot enclosed in a rusty shoe and owned by the leader in the game. The boy who is "it" is known as First Back. He stands in the proper position at a taw.

The leader tells the First Back how and where to stand, then lays his hands on the stooping shoulders and straddles over

When the leader strikes, he makes a mark to show the place, and the First Back takes his place on this line. All the other boys must clear First Back from the taw line, not always an easy task if the leader is a good jumper.

When the leader's turn comes around again he marks a new taw line about a foot and a half—he uses his own foot for a measure—about eighteen inches or "foot-an'-half" in advance of the old one. On the second jump he marks where his heels strike, and the First Back moves to that place, and the others make the leap.

So the game goes on till a player fails to clear First Back, a failure that usually results in tumbling both over. The player who fails is "it" for the next game, which begins at once.

A variation of this game is known as "Foot-an'-half," with a Leader and a Foot-an'-half."

In this game the First Back, who must always select the leader, picks out, instead of the best, as in the former case, the very poorest jumper. He chooses for Foot-an'-half a better player. His object in doing this is to have Foot-an'-half, who is his ally, set tasks that are beyond the ability of the boy chosen as leader.

When all is ready First Back takes a position, with one foot on either side of the

taw line and his side toward the players. Foot-an'-half is the last to jump, and knowing what is expected of him, he leaps as far as he can. Where his heels come down another line is drawn. To this line First Back moves, placing a foot on either side.

Now comes the test of the leader. He can now take a foot and a half, using his own foot for a rule, and jump from that point, but if any other boy can make the leap from the old taw line, the leader becomes "it" and a new game is started.

### SPANISH FLY

I have been unable to learn where the boys got this name. It is started just like the preceding game. Some player, usually one who has confidence in himself, shouts as he makes the leap, and just before his feet touch the ground: "Spanish Fly!"

At once the fun begins in wild earnest. The boy who just shouts is regarded as leader. The second time he makes the leap he cries: "Torchlight" and makes the jump with only one hand on First Back's shoulders, while he waves his hat in the other.

The player that fails to follow the leader's example becomes "it." On the third turn the leader shouts: "Hats on deck," and he places his cap on First Back's shoul-

ders and goes over without knocking it off. The next player places his cap on top of the leader's and goes over.

If there are many boys the hats pile up and the last jumper has a hard proposition to face, but if he succeeds he has a second try when he removes his own hat or cap without knocking the others off; and so it goes on till all the hats are removed.

If this trick is successfully completed, and it rarely ever is, the leader goes over again, this time shouting: "Hats full of water." As he leaps, he turns his hat so that it rests upside down on his head.

If all the players succeed in doing this without losing their hats, the next cry is "Hats in the water." As the leader goes over he shakes his hat off and all the others must follow his example.

When the hats are all in the water the leader must jump over First Back and alight on one foot without touching the hats. Then, without touching his raised foot to the ground, he must hop to his own hat, and kneeling down, pick it up with his teeth, turn his back to taw and, with a head toss, throw the hat over First Back.

If any error should be made, the one making it becomes "it." Each player must take his turn at every change made by the leader.

There is good sport in this game, if it

is played in the right spirit. Sometimes boys with the rowdy element in them make it rough, boisterous and even dangerous.

Let me advise: Never play any game with any boy who tries to boss and bully weaker boys.

## CHAPTER XIV

### THE GAME OF CAT, WITH A GLANCE AT SOME OTHER GAMES ALL SHOULD KNOW

The game of tip-cat, although very old in Ireland, where it is said to have originated, and in all the British Islands, where it is very popular, is comparatively new in this country.

Up to twenty years ago "Cat," as it is generally called, was unknown to the boys of this country. Now it is played from the Atlantic to the Pacific and from the Lakes to the Gulf.

The cat is a piece of wood from four to six inches in length, and from one to two inches in diameter in the middle. From the middle to both ends it is whittled into blunt points. As it must stand a lot of pounding, it will be better if the wood is hard and tough.

The bat or driver should be from one to two feet in length, an inch to an inch and a half in diameter, and of uniform

thickness. When the cat is placed flat on the ground, or in a slight depression made with the heel, it will, when smartly struck, fly into the air. As soon as it rises it is struck again and sent in the direction desired.

In the game of English Cat there are from four to eight bases, depending on the number of players. The bases may be small stones, or even holes in the ground.

The bases are marked on the circumference of a circle, at equal distances apart. After sides are chosen and it is decided which shall have first innings, the Outs take to the field and the Ins post themselves at the bases, one base for each.

One of the Outs throws the cat to the nearest man at base. If he makes a strike then all the boys on base change places, for safety's sake taking the nearest. If the cat has been sent far they keep on changing so long as they think it prudent.

Each base gained scores one point. If the cat is caught the striker is out, or if the cat is thrown in front of an In who is changing bases, he is out.

When the Ins are made Outs, the positions are reversed and the game goes on as before. When a striker fails to hit, he tosses the cat back to the fielder and tries again.

## COUNTRY CAT

For this game a ring twenty or more feet in diameter must be made, in the center of which the striker stands. The fielder—any boy not a striker is now a fielder—tosses the cat, and if it is missed there is no count. If he hits and fails to send the cat outside the circle, he is out, or if the cat is caught, he is out.

If the cat is sent beyond the circle, the striker calls out "Twenty", "Thirty" or "Fifty", depending on the estimated distance the cat has gone. If his claim is allowed, the number called out is placed to the striker's credit. If it is disputed the bat is used for a measuring rod and the distance is measured from the striker's place to where the cat has fallen.

If the striker claimed too much he resigns his stick to the one who has the next turn. If it is found that the striker did not claim too much, the number is placed to his credit and the game proceeds.

The number of points that is to count for the game is decided on in advance, and when a player has served the full amount, he is declared victor, and another game is in order.

## AMERICAN CAT

The American cat is smaller than the Country or English cat, being over four or five inches long. If the game is played on the sidewalk, a small circle is drawn on the paving stones, where the striker stands; but if the game is played on the bare earth, a hole is made, where the striker stands. It is the duty of the batsman to defend the hole or ring with the stick he uses for a bat, and it is the object of the giver or pitcher to toss the cat in the circle or hole.

If he is successful, the striker is out. If, on the other hand, it falls outside the circle, the striker places the cat inside the ring, strikes it on one end, which causes the little piece of wood to fly up in the air, and before it reaches the ground the striker endeavors to hit it again and send the cat as far as possible.

If he misses he throws the cat back to the fielder, who again attempts to toss it into the circle, but if he succeeds in sending it a good distance he does not call his score, as described in Country Cat, but the pitcher offers him five points or ten, as the case may be. The striker, however, is not compelled to accept the offer, and may keep the pitcher bidding for some time, and if his last bid is refused the pitcher proceeds

to measure the distance from the circle to the cat in jumps. If he can make the distance in fewer jumps than he has bid, the striker, or the striker's side, loses the number of points named in the last bid of the pitcher, and the striker is out.

## DUCK ON A ROCK

does not require an "it" to start with. As soon as it is decided to try the game, each player hurries to secure a good sized stone, or where this cannot be had, a club or a half brick will do. As each grasps his weapon he shouts, "My Duck." The last boy to find a stone is "It" and must call out, "My drake."

The drake places his stone on a rock, stump, or other prominence and stands guard.

A taw line is drawn and from this the ducks are thrown at the drake, each trying to knock him off his perch.

When a player has failed, he must recover his own duck, and in doing so he runs the risk of being tagged by the boy guarding the drake. The drake guardian cannot touch the other until he has put his hand on his duck.

The best way is for the ducks to make a rush for their weapons at once when most of them are sure to escape, whereas

one has but little chance. Whenever a boy is tagged he must assume the place of guardian.

If the drake is knocked off, all the boys make a rush for their ducks. The drake cannot tag till he has placed the stone in position.

### STONE THROW

This game may be played with from six to twenty players. When the game is played outdoors, a large stone is placed on a boulder, and a player stands to guard it. A line is drawn twenty or thirty feet from the boulder. Here each of the other players stands in turn and throws a stone at the stone on the boulder, which he tries to knock off the rock. If he does not succeed he goes and stands by the place where some stone has fallen, and waits until some one does succeed. If he prefers, he may pick up his stone and try to run back to the goal before the guard of the stone can tag him. If he reaches it in safety he has a chance to throw again. When some one succeeds in knocking off the stone all who have thrown may pick up stones and run back to the goal line, while the guard replaces the stone on the rock and tries to tag any one who has his stone in his hand, and who has not crossed the goal line. Whoever is tagged becomes guard.

## CHAPTER XV

### AND NOW FOR BALL—SOME OF THE MANY GOOD GAMES THAT CAN BE PLAYED WITH A BALL, BAT, OR RACKET

Ball in some form is played all the world over. Before Columbus came across, the Indians of the St. Lawrence valley played a ball game with rackets, which the French adopted and named Lacrosse. No game requires more dexterity of foot, hand, and eye.

Certain games seem to be favored in certain lands; Cricket in England, hand ball in Ireland, and baseball in the United States. But, then, as we adopt and absorb peoples of all nationalities so we take all the good things they have to offer in the way of games and, modifying them to suit our own tastes, we make them American.

In addition to these imported games, we have, with characteristic originality, invented a lot of games of our own, and in these the boy takes endless delight, without bothering about their origin.

On cricket, baseball, hand ball and other great games, many books have been written telling how to play "scientifically". Now, I am not trying to teach scientific games. My purpose is to add something to the knowledge of games which my readers already have, and so to increase their interests in those healthful sports that add to the joys of boy life.

### TOWN BALL

This game, before being imported from England, long, long ago, was called "Rounders." In this game the bat and ball are both different from those used in baseball. There are corners instead of bases, and there is a "giver" instead of a pitcher. The fielders may be of any number, but they are not known by distinctive names.

The greatest freedom is permitted in the choice of ball. It may be of hollow rubber, or it may be of the good, old-fashioned, home-made sort. Did you ever make a ball, but of course you have, by unravelling a heelless worsted stocking and then winding the thread about a core of cork or rubber till the whole is quite round, the end being sewed to keep it from unravelling. This ball is finished by a cover of thin leather, cut in the form of a three-leaved clover and neatly sewed on with a

waxed thread. The bat is like that used in baseball but lighter and shorter. The corners are usually three in number, with a home-base, making four, but this varies according to the whim of the players or the locality where the game is played. Ordinarily with three corners the distances are about the same as between the bases in baseball. In place of home-base there is a rectangle marked on the ground where the striker and catcher stand.

The giver stands in the same position that the pitcher occupies in a game of baseball; but in place of pitching or making the underhand throw, he throws overhand and "gives" the ball to the catcher over the right shoulder of the batter.

The batter stands at the front line of the home-base and holds his bat above his shoulder and strikes from that position, with both hands grasping the handle of the bat, if he is using a flat bat. But if he is using a "delill" he holds it with one hand and allows the swiftly thrown ball to strike his club and glance off at an angle to a part of the grounds where no fielders are on the outlook for it. Every time the ball touches the bat it is considered a fair hit, and the batter must run for his first corner and reach it, if possible, before some fielder, the catcher, or giver secures the ball and "burns" or "stings" him, as they call

it when they hit a player with the ball. No one stands on guard at the bases to catch the batter out, and the ball, in place of being thrown to the base, is thrown at the man running the corners. When one batter makes a hit or is put out the next batter takes his place as in baseball.

The catcher stands behind the bat and without gloves, and with no protection for his face or body he catches the "hot" balls the giver sends to him. The balls are not heavy enough to be dangerous.

The fielders scatter themselves over the field, according to the directions of the captain, and try to catch or stop all balls from the bat, or those that are thrown at and miss the runners between corners.

When a man is out he is out until the next inning, and the game proceeds without him. If a striker sends a ball in the air and it is caught before it touches the ground by the giver, the catcher, or any one of the fielders, the batter is out. If the ball touches his bat it is counted a hit, and if it is caught by any one of the opposite side he is out.

If any one of the fielders, the catcher, or giver makes a successive throw at a man running the corners and strikes him with the ball when he is not touching his corner, he is out.

If the batter misses a ball that he strikes

at, and the catcher catches the ball before it strikes the ground, the batter is out.

When a man is put out, he is out for that inning, and cannot strike again until the next inning for his side. When all are out but one, that one has a very difficult task to make a score, unless he can make a home-run strike. There are no other batters to help him by sending a "sky-scraper" over the fielders' heads; but he must run his corners while the giver and catcher, standing in their regular position, pass the ball between them. This always produces a great deal of excitement and sport, as all the batter's side coach him, and if he succeeds in stealing a corner or successfully dodges the ball thrown at him, he is greeted by wild cheers from his side.

Should he at last succeed in reaching home-base untouched, he has the privilege of "putting in" the best batter on his side, and there are then two men in and a better chance to score.

### ONE OR TWO OLD CAT

is a modification of town-ball, and was played by our great grandfathers while in camp during the Revolution. It is a good game for three or four boys, not less than three, as there must be a pitcher, a catcher, and a batter.

Any goal can be decided on in advance, but usually the striker, after making a hit, runs and touches the pitcher's base. If he gets back without being it, or stung by the thrown ball, he can keep on, each run counting one. If the ball is struck at and caught, the striker is out, and the catcher goes to the bat. This is one old cat. With two strikers, there are sides and it is called two old cat.

### HAND BALL

is another game that has grown into popularity in the United States. It is said to have originated in Ireland, where regular courts are built for it, but it can be played in any place where there is a high brick wall with a smooth open space in front.

This game can be played by two, or sides may be chosen with any number of players on each.

A medium ball, with good bounding qualities is the best for this game. The player throws the ball on the ground and in the bound he strikes it with the palm of his hand, sending it against the wall, above the three foot line. The force must be enough to cause the ball to drop outside the taw line. The next player uses his hand as a bat, and sends the ball back against the wall in the same manner. He must hit the ball on the first bound or be-

fore it has touched the earth. The next player is ready to take his turn and strikes the ball on the rebound, and so the game proceeds, until some one misses, or sends the ball below the three foot mark or outside the boundaries.

If it is the first striker who misses or sends the ball out of the boundaries on the ground or side of the wall, then he loses his inning, and the boy on the other side drops the ball and strikes it as already described.

If it is a player on "outs" that makes a miss, then the "inners" count one for each miss or foul. A foul is when the ball goes below the three foot line on the wall or rebounds outside the boundaries.

The Outs cannot count when the Ins miss, but they take the place of the Ins and the Ins are out. After the first hand up or play it is unnecessary that the ball should rebound beyond the taw line. Fifteen points make a game. In England the boys have the same game under the name of Fives.

### ANTHONY OVER

or *House Over*. This game was very popular out West when I was a boy. We called the game Anthony Over; in the East I find it is called House Over. But no matter

the name, it affords a lot of exciting sport. It is best played in the country for there can be found a house or a barn standing alone and with lots of space on either side for running.

After sides are chosen and all are ready, divide into two groups, each out of sight on opposite sides of the building. The ball may be that used in Town Ball. The boy who has it throws it over the building at the same time shouting as a warning to the boys on the other side: "Anthony Over," or "House Over."

One of those on the opposite side must try to catch the ball before it reaches the ground and if he succeeds, he shouts, "Over! Over! Over!" at the same time rushing around one end of the building. Those on the side from which the ball was thrown at once make a rush for the opposite side, and all whom he reaches by touching or by striking with the ball are his captives and are counted "out".

If there is no catch, there is no count and the sides remain as they were, each throwing the ball alternately, and shouting as before to give warning. In some places the boy hit, instead of being a captive, joins the opposite ranks. It is always very hard, sometimes impossible, to capture the last boy, but it can be done through strategy.

## CORNER BALL

In this game the corners depend on the number of players. With six boys there are three corners, which make the limits of a triangle. With eight boys there are four corners, the limits forming a square. You should have more than four players because with this number you would have only two bases and the boundaries would be a straight line.

The Ins take the bases and the Outs group themselves inside the triangle, square or whatever figure may be formed by the corners. The Ins pass the ball around the corners, throwing and catching until they see a good chance to hit one of the Outs grouped inside the boundaries. The ball is then thrown at the Outs, and if it hits one he is out of the game; and if it misses, the thrower is out of the game. But, if one of those in the center catch the ball, there is a laugh and the ball is thrown back to a corner man with no scorce either way.

When all of the one side are put out of the game the opposite side has won, and all are entitled to a throw with the ball at the boy on the losing side who was first put out. The victim stands with head down and back arched facing the wall, while the

victors line themselves at thirty feet distant and take turns "burning" the captive—that is, hitting him with the ball—if they can. It must be remembered that the dangerous baseball is never used in these games, and the other ball does no injury to the lad struck.

## CHAPTER XVI

### BASEBALL, THE GREAT AMERICAN GAME. A FEW POINTERS THAT MAY HELP YOU

The best baseball field is level and smooth. It is best, if it can be had, to start with the right kind of a layout.

The catcher, or back stop, as he is called by professionals, is usually in front of the observation stand, or a board wall or other obstruction. This is usually ninety feet from the home plate.

If you fasten a cord one hundred and twenty-seven feet four inches long straight out in the field, the place for second base is found.

This done, take a rope or line one hundred and eighty feet long, fasten one end to the home plate and the other to second base; then draw the middle of the line at first to the right and then to the left, till it is tight. This will mark the places of first and third base.

The place of the pitcher's box is fixed by measuring a line of fifty feet from home to second base.

The pitcher's box should be five feet six inches long by four feet wide. For batsman there are two positions, one for the left and the other for the right handed. The batsman's stand is two rectangular spaces, each six feet long and four feet wide. The nearest line should be six inches from the home plate, and should extend three feet in front and three feet behind the center of the home plate.

Having thus laid out the field, we proceed to further mark the various points. In doing this, if the field is to be a permanent one, it is best to make use of the most improved apparatus; but if the field is only a temporary one, there are various devices which save expense, and which answer the purpose quite satisfactorily. The home plate is, by the rules, a whitened piece of rubber a foot square, sunk flush with the ground, its outer edges being within the lines to first and third bases. An excellent substitute for rubber is a piece of board painted white, or a bit of marble such as can be readily obtained at any marble yard. The first, second and third bases are canvas bags, 15 inches square, stuffed with any soft material, and so fastened as to have their centers at the corners of the diamond which we have already marked out. They will thus extend several inches outside the diamond. The

customary method of fastening the bag is by means of a leather strap passing through loops upon the bag and directly around the center. This strap is slipped through an iron staple in the top of a post driven firmly into the ground at the corner of the diamond, and the strap is then buckled on the under side of the bag.

The wooden post and the iron staples can easily be had. It is better to have them to keep the base fixed. A stone is apt to work injury.

The bags can be homemade, from old carpets, or old mattresses, or even from shavings or hay, stuffed into little calico or canvas pillows. A piece of stout clothes line will answer for more expensive straps.

The pitcher's box must be permanently marked. This is done by sinking into the ground an iron plate, stone or a wooden post, four or six inches square.

If there is thick grass in the infield it must be cut from the pitcher's box to the back-stop, nine feet in width, or better still remove the sod and fill in the space with hard-packed earth. The players will soon make the batting-crease and base lines marked on the field.

To make a fair division of labor in laying out a field, let three boys agree to furnish the iron staples, and posts for the bases and pitcher's position, seven in all.

The four for the pitcher's box may be anywhere from three to six inches square at the top, and two feet long; those for the bases being three inches in diameter; and all of these sharpened to drive in like stakes. The staples, three in number, should be two inches wide. Let three others agree to furnish the bases; one boy to provide the six pieces of stuff—about sixteen inches square, another boy to furnish three two inch straps with buckles, or else sufficient rope. The straps must not be less than a yard long. The third boy can see that the bags are looped for the straps, stuffed and properly sewn. Three other boys can agree to furnish the home plate, and to bring to the ground implements for marking and laying out, viz.: a tape line two hundred feet long, a supply of cord, a sharp spade, a sledge hammer to drive stakes, a small hammer to drive in staples, some lime to mark out the lines, and a pail to wet it in. A tennis marker will save much work. The best ball to purchase is the regular "league" ball. These balls are the most uniform in manufacture and quality, and give the best satisfaction in the long run. It is worth while to purchase more than one, because it often happens that wet grass ruins the cover of the ball. When a base ball has been used in wet weather it should be put aside,

and the next time the nine wish to practice on a wet day this ball, which will be very hard, should be used. As soon as it is wet it softens again, and it is just as useful as a new one would be after wetting. Constant wetting rots the covers, but a harness-maker will re-cover the balls, and they can be used for practice.

In bats there is more variety. A special bat is said to be made of wagon-tongue, but the more commonly favored is of ash, second growth, thoroughly seasoned. These can be bought for from twenty-five cents to one dollar each, according to quality. Lighter bats are made of willow; and the cheapest of basswood. These do not last so well as ash, however.

The rules specify that the bat shall not be over two and a half inches in diameter, nor more than forty-two inches in length. In selecting a bat, individual taste is the best guide as to matters of weight and balance, but the grain should be examined carefully. If a bat is varnished, the handle should be scraped, so that it will not turn easily in the hands.

The first baseman and catcher should each wear gloves to protect the hands from the pounding which playing these positions involves.

You can make a pair of baseball gloves out of a stout pair of buckskins. The

fingers and thumbs should be cut off at the first joint for the baseman, and if any extra padding is needed, pieces of felt can be sewn on. The catcher's gloves can be made in a similar way, except that the left-hand glove is kept whole and the ends of the fingers reinforced by heavy leather tips. A shoemaker can put on these tips which should be about an inch and a half long. Both gloves should have padding in the palm and over the ball of the thumb. This padding can be made of as many layers of felt as are desired, sewn in when the glove is turned wrong side out. The pads should be so cut that they run up into the finger a little way, and thus form a protection for the base of the fingers. Every man who catches should wear a mask. A body protector will also save many a bruise.

Individual uniforms should be considered where clubs are formed, and let me say it is better to start with a club. Uniforms for boys need not be expensive; shirts of one color will do with the addition of a home cap. Pads on the knees and along the thighs, as well as rough mitts are of use in sliding.

Any number of players may belong to a club, but only nine can play on a side. Each side must have a captain, who must be a good leader as well as a good player.

The umpire is chosen by both sides to

decide questions in dispute. There is no appeal from his decision, even where both sides think him in error.

It would take a whole book properly to go into the details of baseball, but no instructions can take the place of practice, and it will be better if this can be done under the direction of an expert.

## RULES

Here are a few baseball rules that it will be well to remember:

1. The infield must be thirty yards square.

2. The bases must be four in number.

3. The ball must weigh not less than five nor more than five and a quarter ounces. It must be not less than nine nor more than nine and a quarter inches in circumference.

4. The bat must be wholly of wood, except that the handle may be wound with cord or wire. The length must not exceed forty-two inches nor the diameter, at the thickest, more than two and a half inches.

5. The players on each side shall be nine. The captain assigns them their places.

6. The pitcher must keep both feet on the ground, except when throwing the ball.

7. Players' benches, out of the way, must be furnished by the home club.

8. Each game must consist of nine innings. If the side first at bat scores less in nine innings than the other did in eight, the game is ended.

9. If after nine innings the score is a tie, the game shall continue unless called off by the umpire.

10. The game shall be forfeited if a player comes too late, or does not take the bat after five minutes when "game" is called.

11. Every club shall be required to have one or more substitutes, in the event of an accident to a regular player.

12. Men on the bases cannot have substitutes run for them.

13. The choice of innings shall be given to the captain of the home club.

14. A dead ball is one that strikes the bat without being struck at.

15. A score shall be counted every time a base run is made.

16. A ball that goes over the fence, outside the two hundred and thirty feet line, wins two bases.

17. A foul strike is when the batsman hits, when he is not in position.

18. The runner must touch each base in its order.

19. No umpire shall be changed during the game.

20. A coach is restricted to instructing the base runners only.

# Autumn

## CHAPTER XVII

### SOME DETAILS ABOUT FOOTBALL

The mere act of kicking a football is a good exercise in itself, but very few who do so, particularly among boys, know anything about the game.

In England and her colonies there are innumerable football clubs in every town and village, but in this country the game is largely confined to colleges, and even in these not all the students play; indeed, so many are the physical requirements and so strenuous is the work that only those with extraordinary strength and activity are selected in the making up of teams. Yet, as it is, when properly played, one of our best out-door games, I think it well that my boy readers should know something about it.

At one time there were fifteen players on a side; now eleven is the legal number. The ground has much the same appearance of a gridiron, and the name "gridiron" is often applied to it, just as "diamond" is

applied to the space marked off for that game.

Along the field the ball is urged, in ways presently to be explained, and which only the strong and active would care to carry out if pleasure in the strenuous sport were not its own great reward.

The ball used in this game is shaped somewhat like a lemon, or two cones joined at their bases. From the middle the angle of slope must be the same to the two ends.

The cover is of leather, and enclosed in this is an inflated bladder or an inflated rubber ball of the same shape. The work of inflating is done through a nozzle or opening as in a rubber tire and it is closed in much the same way. This is done before the cover is put on.

The football field is not hard to mark out; as in baseball, the flatter and smoother the better. The field is rectangular, one hundred and sixty feet wide by three hundred and thirty feet long. For convenience in telling the position of the ball, lines, indicated by whitewash as in tennis, are drawn across the field, fifteen feet apart.

In laying out, measure eighty feet from one corner along the line and mark the point. On the opposite end mark in the same way. The end lines being one hundred and sixty feet long, the points indicated will mark the center of the lines.

Next measure nine feet three inches to the right, and the same to the left of the center points on the end lines, and place four goal posts, two at each end of the field. This will leave the proper space, eighteen feet, six inches between the posts. On these posts, and ten feet from the ground, the cross bars should be placed. The uprights should extend above the cross bar just ten feet.

### THE TEAM

The teams in football consist of eleven men each, but where boys are out for practice, they need not be bound by the regular rules.

The eleven men are classified into "rushes" and "backs." There is a quarter back, two half backs and a full back. The first seven are line men, further known as center, right guard, right tackle, right end, left guard, left tackle and left end. Each player is given a number to designate him and this number is known to the captain only.

The kicks have special names.

Drop-kick, when the ball is dropped from the hand and kicked the instant it touches the ground; the

Place-kick, made by kicking the ball after it has been placed on the ground; the

Punt, made by kicking the ball as it falls from the hands and before it reaches the ground; **the**

Kick-off is a place-kick made from the center of the field. The kick-off cannot score a goal. The

Kick-out, when one of the players on the side which has touched the ball down in its own goal makes a punt, drop-kick or place-kick. A

Free-kick, any kick where the rules forbid the opponents from advancing beyond a certain point.

In-touch is out of bounds.

A Touch-down is when the ball is kicked or carried across the goal line and held there.

A Touch-back is when the player touches the ball to the ground behind his own goal, the ball having been propelled over the line by an opponent.

A Safety Touch-down is when either by a kick, pass, or a snap-back, the player guarding his goal receives the ball from one of his own side and touches it down behind his goal line, or when he carries the ball across his own goal line and touches it down, or when he puts the ball in his own touch-in-goal, or if the ball, being kicked by one of his own side, bounds back from an enemy across the goal line

and the player guarding the goal then touches it down.

### SOME RULES

When a kicked ball is caught on the fly by one of the opposite side, the catcher marks with his heel on the ground the spot where the catch was made. The catcher then shouts, "Fair Catch," or he may hold up one hand.

Beyond the heel mark the opponents of the catcher cannot advance till the ball is again put in play. The catcher is entitled to the privilege of falling back towards his own goal, as far as he chooses; from the point selected he may take a place-kick, a drop-kick, or a punt. Instead of this, he may choose to give the ball to one of his own side for a "scrimmage." The scrimmage is governed by special rules.

If the catcher chooses to kick, he must drive the ball at least ten yards, unless stopped by one of the other side.

A player is said to be "on side" when he is not between the ball and the opponent's goal, or is where the ball touches an opponent. When a ball goes out of bounds, it is called going "into touch." In such case, a player is sent to bring it back to the place where it crossed the line.

A member of the side that sent the ball out of bounds puts it again into play.

When a player carriers the ball across one of the end lines he obtains what is called a "touch-down."

Any player on this side may now take out the ball; he makes a mark as he walks by twisting his heel. When he has reached a point that suits, he places the ball for one of his own side to kick. The other side meanwhile retires to its own goal line.

When the ball has been carried to within kicking distance of the goal, the question of the kind of kick needed is often a question for deliberation.

At any time a player may carry the ball across his own goal line, and touch it down there for safety. This counts two points for the other side, or instead the side may take the ball out twenty-five yards for a kick-out.

The moment the ball touches the ground it is "in play," and the enemy lines up on their goal line will block the kick, if possible.

The formation is to a great extent governed by the plays to be made, but as a general rule the seven rushers stand in line of battle facing their opponents. Just behind the rushers stands the quarter-back, and a few yards in the rear of him the two half-backs are placed; while a dozen

yards further back, alone in his glory, the full-back guards his precious goal.

If a strong wind is blowing, the winner of the toss-up takes the side favored by the wind, and the other team have the kick-off. If there is no wind to speak of, and no great advantage in either goal, the winner of the toss-up chooses the kick-off, and the other side have the choice of goals.

The two teams now line up in their respective positions, and the ball is placed upon the exact center of the field by the side having the kick-off.

### THE FULL-BACK

As a rule the full-back is a good kicker and is selected to open the game.

To the right of the ball on the line stands right-guard, alongside of him is right-tackle, next to him is right-end, then comes right half-back and quarter-back, while stretched out on the line to the left of the ball are the center, left-guard, left-tackle, left-end and left half-back. All these sturdy men are ready to rush upon their opponents the moment full-back's toe touches the ball.

As the rules require the opposite side to stand at least ten yards back of the middle line, they form themselves in a sort of rough triangle so as to be able to guard

the field and stop the ball with the least possible waste of time. At the required ten yards back of the center line, center of the opposing side is posted, back of center stand the two guards, back of them the two tackles with the quarter-back between them, behind them the two half-backs are stationed with full-back in front of his goal.

As there are no rules for placing the men on the field, this formation is altered to suit the captains.

The player selected to kick the ball must send it at least ten yards into the opponent's camp, and it is usually sent as much farther as the judgment of the kicker directs. When the ball comes sailing over into their ranks the enemy catch it and either return it by a kick or one of them runs with the ball.

When the player made the kick-off he calculated that the rushers on his side could reach the ball in time to prevent the enemy making much headway with it, and the enemy calculated to interfere in all lawful ways with the kick-off's rushers. If the enemy who holds the ball starts for a run, the men on the other side tackle him.

As soon as the player and ball are brought to a standstill the runner cries "down." Then some one on the runner's side places the ball on the ground at the spot where it stopped, and it is put in play

by the snap-back kicking it or snapping it back, usually with his hand, but sometimes with his foot, to the quarter-back of his own side, who has taken a position just behind snap-back. Up to this time the men of each team have kept their positions upon their own side, but as soon as the ball is put in motion both sides may press forward and the scrimmage begins.

When a snap-back is to be made they arrange themselves in this way: Center holds the ball, behind him stands quarter-back; more to the rear is full-back, with left half-back and right half-back a little to the front. Flanking these and slightly in advance are the two ends.

Each of these is ready to receive the ball, at a signal from quarter-back.

On either side of center are two guards, and two tackles, and the rival fives face each other.

When the ball is put in play there is a grand rush. The runner with the ball is surrounded by friends who try to force their way through the opposing line.

It is impossible in a general article to go into all the details of this popular game. Many authors have tried to make the rules and the methods plain, but they have not succeeded very well. The best way to learn is from an old player or to watch old players at the game.

The points of the game are counted as follows:

| | |
|---|---|
| Goal by touch-down | 2 |
| Touch-down without goal | 4 |
| Safety by opponent | 2 |

## CHAPTER XVIII

### A HINT AT SOME WELL-KNOWN GAMES, INCLUDING HOP-SCOTCH

During a good deal of world-travelling I cannot recall ever having seen a game of Mumbly Peg played outside of the United States and Canada. I have placed it among the autumn games, but we all know that, except in winter when the conditions are unfavorable, it can be played at any time, where two boys and a jackknife can be assembled, with reasonably soft, smooth ground on which to play.

This game has so many variations locally and even among individual players that I shall not attempt a detailed description of the many ways in which the blade of the knife is made to enter the ground.

The feats, known to every boy, can be performed alone, and, when a boy, I know I did practice a lot by myself in order to avoid the consequences of defeat.

The rule is for the first boy to take the

knife and go through as many feats as he can, but at the first failure the second boy takes the knife and does the same. And when all but one have succeeded, the penalty for failure is as follows:

A wooden peg two inches long is driven into the ground. A little must be left above the earth. The defeated boy has then to seize this with his teeth and draw it out. If he has difficulty in getting hold, the other boys are the more delighted and set up the cry, "Root! Root!" but this is not fair, and he should not be discouraged.

### JACK STONES

is a much older and a more widespread game than mumbly peg. The knuckle bones of sheep and pigs, marbles, pebbles or any other small, heavy objects that can be thrown and grasped, are used. The best are made of iron and are sold cheaply.

Five stones or jacks are necessary for the game, a description of which I shall not attempt, for the feats vary, and the ingenious boy can add to them.

There may be a penalty decided on in the game of jack stones, but it is not usual, and so may be placed among those contests of skill in which success is its own reward.

HOP SCOTCH

is a far more strenuous game than the two just mentioned, nor, when properly played, is it behind them in the skill required. Of course, the best place for all games is out in the open country, but the children in towns and cities do not cease from the play for want of space.

Except when covered with snow and ice, Hop Scotch courts can be seen chalked out on the sidewalks of all our city blocks. A bit of brick, a flat stone, a shell, the lid of a blacking box, indeed any small object that can be moved by the foot can be used as what is known as the "Potsherd."

After choosing who shall be first, second, etc., the player stands at taw and tosses the potsherd into division number one. Hopping on one foot over the line into number one, and still keeping one foot raised, he makes a hop-kick with the other and sends the potsherd out of the number to that in the right or left section, as may be decided on in advance. There are many local variations of the rules, just as there are variations of the plan of the ground, and perhaps the one you know best is the best.

Hop Scotch may seem simple to those who have never tried it. In truth it is a game which, even in its simplest form, re-

quires much skill and activity. But it is excellent for the muscles of the leg and it cultivates patience and persistency.

RULES

When a player touches his hand or foot to the ground it is called "grounds," and he is out.

When a player pitches the potsherd into the wrong division or on a line, he is out.

When a player kicks into the wrong division or on a line, he is out. In the next turn he must play from taw. When the turns of the others come they must begin at the division in which they failed.

# CHAPTER XIX

## HOW TO CAMP OUT—THINGS EVERY CAMPER SHOULD KNOW

Camping out is not in itself a game, but it would be hard to imagine a more delightful way for the boy or the man who has still something of the boy in him to spend a vacation.

Of course, boys in the country have more opportunities to learn about camping than boys living in the city. One thing is that they are more familiar with tools, but city boys are perhaps more eager for the life, as it is so primitive and in such striking contrast to their usual way of living.

Before going into camp there are many things for the camper to learn if he does not know how, and one of these things is how to make a fire. If one has matches, kindling and wood there is no trick in making a camp fire, but there is a good trick in making a fire where there are no matches and the wood is green or wet.

Of course, you know that men built fires in houses and camps many, many hundreds of years ago, but you may not know that up to one hundred years ago matches, which are now so cheap and so abundant, were practically unknown. How, then, did they start fires?

Our own Indians get fire—I have seen them do it—by rotating a hard upright stick in a cup-shaped hollow of lighter wood, in which dry charcoal or the fungus-like shavings of punk were placed. Cotton or any other substance that ignites easily would answer as well. This is getting fire by friction.

Every hunter in the West and among the Indians and Mexicans of two continents now carries a flint and steel, and a dry substance to catch and retain the spark. This substance with a full outfit can now be had in most stores that supply sporting goods, and every camper should have a supply.

The back of a jackknife, a bit of flint-like rock, such as quartz, and some very dry cotton lint—kept for protection in a close box—will do just as well as the manufactured outfit, and it can nearly always be had. If you carry half-charred cotton rags in a box or bottle you will find them of use in making fire.

## SHELTER

Camps are either temporary, that is changed from day to day, or they are permanent and may be visited year after year, or they may be used for a few weeks at a time. Temporary camps are the ones we are considering, and these can be elaborate or very, very simple. I prefer the latter, and I am sure the boys will agree with me.

During the autumn and when the weather is dry and the nights not too cool, the best way to camp is in the open, sleeping on beds of boughs, about a roaring fire, and with one blanket under and another over.

Small dog tents, such as our soldiers carried in the Civil War, are cheap and very convenient. Each man carried a section, and two made a tent, into which two men crawled when it rained, but in dry weather they preferred to sleep in the open, even when it was freezing.

Shelters of boughs, arranged A fashion from a ridge pole make good temporary shelters and are first rate as wind brakes at night.

If you have to sleep on the ground, you should have a poncho, that is a blanket faced with rubber on one side, to keep the body from too close a contact with the wet earth.

The ideal camping place is near a good spring or beside a stream of pure water, in a natural grove with plenty of dry dead wood in the vicinity. The dry wood should be protected from rain if you are camping in the same place for some time.

The camp fire should be made of two thick green sticks or legs to be used as andirons. These should be placed about eighteen inches apart, so as to keep the lighter, dryer fuel off the ground. They will also serve to support the cooking pots. Where stones can be had, they serve well for andirons.

A shack built of crossed logs requires some time to build and some skill to make, but it is not beyond the reach of any boy who has seen—and who has not—an old-fashioned log shanty.

Be sure to select a dry place for your camp, and if you are to stay for any time take care to keep it scrupulously clean, burning every scrap that might attract flies or the smaller wild animals, or might make a stench.

Mr. Beard, an authority in such matters, writes:

"Never pitch your tent in a hollow or depression, or you may find yourself in the middle of a pond. Soldiers always dig a ditch around their tents. The floor, which

is often your bed, can be covered with straw, if straw is obtainable; if not, fir boughs; these lie flatter than spruce. It is best to lay the foundation of good-sized branches, cover them with smaller ones, and over all place a deep layer of fir twigs broken off the length of your hand and laid shingle-fashion, commencing at the foot of your bed, or the doorway of your shack or tent, each succeeding row of boughs covering the thick ends of the previous row. A properly made bough bed is as comfortable as a mattress, but one in which the ends of the sticks prod your ribs all night is not a couch that tends to make a comfortable night's rest.

"Candles, lamps and lanterns add to the luggage of a camper and may be dispensed with, yet it often happens that you will need a light at night. If you do, remember that almost any sort of fat or grease will burn with a wick."

Boys from our cities have even a greater desire to get back to the heart of Mother Nature than have country boys, perhaps because they find a greater novelty in the forests, the streams and the untrammelled conditions of our primitive ancestors. But even the boy brought up on the farm heartily enjoys the freedom of the camp, and he takes naturally to all its requirements.

## IF LOST

But all boys, even trained foresters, are apt to get lost in strange woods; but no matter the person, it is well to know what to do under such circumstances. As a rule the denser growth of moss on trees is on the north side. This knowledge may help find the direction; but it is better to carry a small pocket compass.

When the sky is clear, the sun and the stars help to guide the course, and if followed one is saved from travelling in a circle, as the lost are pretty sure to do in a dense forest.

If twigs are broken from bushes they will serve to show the course to those out searching. A good plan is to follow down the course of a stream, which always flows into a larger body of water and will lead to some abode. If a hill is accessible, the lay of the land may be had from its summit.

In any event, should you be lost, do not get rattled. You will be missed in camp and a search will be made by your friends. If you have to stay in the woods all night, make the best of it. Others have made the best of it by sleeping near the foot of a tree or beside a log. It will be more cheery if you can make a fire without danger to the woods.

THE OUTFIT

Now the camping outfit, including enough provisions for the proposed stay, must be carried, and unless the stay is to be short, a wagon or pack animals should be provided for this purpose. In the army and out West mules are used for this purpose, but any quiet horse will do just as well.

The old sawbuck saddle, shaped like the letter X, answers very well, but the Mexican pack, known as the aparcho, is much better. It is made of a plated straw matting, on which is fastened a strong wickerwork saddle, and a properly folded blanket, for you must be careful that the animal's back does not get sore. The saddle is fastened by pliant ropes, or broad belts of leather, called in the West "cinches," to fasten which securely requires some skill, as they pass through a circular ring and are secured by a hitch or peculiar knot that holds well and can be unfastened with a quick jerk.

For a journey of ten miles or more I would not advise you to make the pack load more than two hundred pounds, though I have known mules to carry three hundred pounds at a pace of twenty miles a day over rough trails.

If the pack is heavy, it may be lightened

by having each camper carry his own blankets, in a roll, the case resting on the right shoulder. I would advise each to carry a canteen if there is danger of your being long away from good water.

You should have the following articles: A long-handled frying pan, a bunch of a half dozen pieces of telegraph wire, each two feet long, with which to make a spider or broiler; by simply laying them across the fire or over the hot coals you have a gridiron; you may bundle it up when its work is done; three or four assorted tin buckets for cooking purposes and for water; a tin coffee pot; a long iron fork; a long iron spoon; some cheap tin cups, plates and spoons, and some forks and knives.

Do not depend upon the fish and game for food supply, but take along some boneless bacon and fat pork. With the latter, you can cook your fish, and the former is good for a relish with whatever fresh meat you may secure. Then you should have some good ground coffee in a tightly closed box. Some tea in a screw-top glass preserve jar, sugar, salt, prepared flour, corn meal, rice, beans, oatmeal, condensed milk, evaporated cream, crackers, and as much canned or dried fruits as you can transport without overloading—these are not necessaries, but all of them will come handy.

*Worth Remembering.* It is not well for a lot of boys, no matter how strong and intelligent, to go off camping unless one of their number has had practical experience in that kind of life. It would be better to have a man in the party and to follow his instructions, as a soldier obeys his superior.

Before starting off it will be well to learn just what each member of the party can do best, and assign him to that work for the time. Afterwards it might be advisable to take turns at the work thought to be least agreeable.

Cooking, washing dishes, gathering fuel and keeping the camp in order are just as essential as hunting or fishing, more so, indeed; for cooking, etc., are necessary, while fishing and hunting are pleasures.

Keep your own person clean and carry along needles and thread so that you may be able to repair the rents in your own clothes.

Before going into camp every boy should know how to wash, dry and fold his own flannel shirt, stockings and handkerchiefs.

The captain of the camp should write out his orders and post them so that they can be read by all; nothing should be left to chance.

Under all circumstances keep your tem-

per and remember your companions are entitled to a good time as well as yourself.

Don't be selfish, and don't go camping with boys who have that vulgar characteristic.

## CHAPTER XX

### CAN YOU RIDE A "BIKE?" SOME THINGS WORTH KNOWING ABOUT THE WHEEL, AND SOMETHING ABOUT OTHER THINGS

To begin with, I am not going to tell you how to ride a bicycle. The only way to learn that is to get a wheel, and if it bucks you off, mount again and keep on trying until you master the machine.

I have heard folks say that the bicycle is going out of fashion. That is sheer nonsense! What have boys, or sturdy young men, or sturdy old ones for that matter, to do with fashion? The bike is here, and it has come to stay, and to go on revolving as long as folks live on a revolving world.

Bike parties that make explorations lasting for days, or even for weeks, are now not unusual, and if they travel prepared to make camp wherever night overtakes them, the more healthful the sport and the more novel and independent the tour.

You should know how to carry the necessary baggage on your wheel. It is customary in ordinary wheeling to strip a machine of every ounce of weight not necessary. Many riders travel without even a tool bag, pump or wrench. The additional weight of a few tools cannot be sufficient to make much difference to a rider.

If you are a "scorcher," and are out to pass everything you meet, the less weight you carry the better time you can make. But the wheel is used by most boys for other purposes.

The pathway of the biker is not always straight and smooth, as every boy who has ridden a wheel knows. The collision can always be avoided by good eyes and reasonable speed, but no eyes are keen enough to note, and no skill alert enough to avoid the broken glass, or the bits of scrap iron that beset the path and puncture the tire.

## REPAIRS

A friend assures me that he has mended a punctured tire with chewing gum. Now I do not think well of the chewing gum habit, but if the stuff can be found to have better uses, I am not the one to discourage it. So it might be well to carry a supply to fill punctured tires.

This is said to be the way to use it. Let all the air out of the tire, then with a flat piece of wood force the gum into the hole —of course the gum must be "chewed" first to make it soft. Plaster some over the hole, then bind the place with a strip of rag on your handkerchief. This done, pump in the air and ride with care.

A broken handle bar is bad, but a substitute that will work can be made if you have some strong string and a stout pocket knife. Cut two sections of a springy sapling, and bind them securely to the front fork, one on either side, and sufficiently long to reach just above the broken bar. Next tie securely a stout stick of proper length to the broken bar, and tie to this the end of the uprights. If properly done, this will enable you to finish your journey, which for a long distance is much pleasanter than walking and leading your wheel.

A rope tire will often enable the rider to reach home. A few yards of clothesline, borrowed, begged, or bought from some wayside house, will enable you to make a solid tire. Remove the rubber tire, tie it to your handle-bar, and take the rope and bend one end diagonally across the hollow in the rim of the wheel. Wind the rope carefully around, over the bent end of the rope; around again alongside of the first length until the rim is covered. Keep the

line tight, and wind it until it fills up the hollow and is considerably higher in the middle than at the sides. The neater this work is done, the more comfortable will be your ride home. When the rope tire is complete, pry up the side lap and force the free end of the rope diagonally under it until it comes out on the other side. Draw it taut and cut off the end flush with the outer wrapping. Now pour water all over the rope until it is thoroughly wet; this will cause it to shrink and become firm and hard.

Have a stand for your bicycle when not in use, and keep the wheel clean and well oiled. No boy is worthy to own a tool or a toy, or anything else that is perishable, if he is too lazy or too careless to have a pride in it, and to keep it in the highest state of efficiency.

The very best time to make needed repairs is when the need is discovered. Never wait until the time comes to use the thing again. The boy who gets into that habit is disqualifying himself for the battle of life, in which promptness, accuracy and energy are the prime requisites to success.

If you cannot take care of your things, or prefer to resign that duty to others, then resign your ownership too, and let some more deserving comrades own them.

I have often wondered why "the rope"

—as our western cowboys call the lariat, and the Mexican lariata—has not become a national sport, for its proper use requires great skill, and it is distinctly an American institution.

Children of the Mexican herders begin practicing with the lariat as soon as they can coil a rope. I have seen them catching cats and chickens with their little lariats, and their dexterity surprised me.

The lariat may be of any length from twenty to eighty feet. It consists of a long, strong, flexible rope, with a running noose at the end thrown. I have seen them made of hemp, horse hair and raw hide—the latter are by far the best, provided they are flexible and soft enough. The raw hide is cut and specially tanned, but for practice an ordinary thin rope will do.

The noose is made by fastening a small iron eyelet to an end of the rope, and through this the other end is drawn.

The greater part of the rope is held coiled in the left hand, while the noose is circled above the head with the right, and thrown when the proper swing has been reached.

A post makes a good target. It should be, to start with, not more than ten feet away. After a time the distance can be increased, and the nature of the target changed.

You will be surprised, if you try this, at the skill you will gain, and the pleasure the lariat will afford to yourself and companions.

## CHAPTER XXI

### THE OLD SCOTCH GAME OF GOLF—SOMETHING ABOUT HOCKEY AND SHINNY

In Scotland, where the game comes from, golf has been pronounced "goff" for more than five hundred years.

Now that our President and other great men have taken to golf, everybody reads about the popular game, but very few know anything about it but the name. To such, the following facts may be of use. The game is interesting, and its rules can be soon learned, but like everything else we do for pleasure or profit, it takes a good deal of practice before one can pose as an expert. Boys take to golf and soon excel their seniors.

The equipment for golf consists of a large field, called "the links," to play in, a set of sticks or clubs with which to make the strokes, and a ball to be hit at.

The start is made from a point called "the tee." The player's purpose is to send

the ball, which may be rubber or gutta percha, and is about one and three-quarter inches in diameter, into a small hole. This hole may be from twenty to a hundred or more yards away, and the skill consists in doing the trick with the fewest possible number of strokes. The player who makes the most holes with the fewest strokes wins the game. This sounds very simple, and it is simple to understand, but not so easy to do.

### THE LINKS

Many of the best links are laid out where the soil is sandy and the grass sparse and stiff. Such links dry quickly after a rain, and the ball is easily played and seen. The course in this country for the regulation game is sometimes three miles long; shorter courses can be laid out for informal work and practice. The links do not extend in a straight line. It is much better to have them wind about and end near the start. By carefully planning the curves, a golf course may be made to occupy limited grounds.

It has become a rule to make eighteen holes constitute a full course. In the United States, however, comparatively few courses have more than nine holes, and good practice can be had upon a course with even a fewer number.

The starting-point is called "the teeing-ground," and is marked by two whitewash lines at right angles to the course, forming a parallelogram with the side lines of the course five or six yards in length by two or three in breadth. Within the parallelogram the player places his ball upon a tee or small hill of sand or earth from a half to three-quarters of an inch high.

The holes are about four inches in diameter, and are lined with iron—condensed milk cans or similar vessels may be used—and the ground for seven or eight feet on all sides is more level than the rest of the course and is known as the "putting green." The holes are placed at distances varying from three hundred to twelve hundred feet apart, and are marked by little red flags, which are removed when the player approaches.

As a match game consists of thirty-six holes, eighteen holes gone twice over give the required number; so will nine holes gone over four times, or six holes six times, or four holes nine times, or three holes twelve times. So you see that if your ground is limited you need have but three, four, six or nine holes, and the fewer the holes the fairer becomes the game for strangers, because in going over them so often they learn the ground, and that puts them on an even footing with the home players.

## THE CLUBS

The golf clubs are something like shinny sticks in shape, but modified and better made, as the ball must be driven more accurately and much farther. The heads are made of wood or iron. There are a great variety of them, but the beginner does not need more than four or five.

The driver, a large club with a long shaft; the head is wood. It is used to start and when the ball is on the tee.

Let me add here that when the luxury can be afforded, it is usual to employ a boy, known as a "caddy" to carry the bag or receptacle in which the different clubs are kept.

The brassie is much like the driver, except that it has a brass head or plate on the hitting part. It is used for a good send when the ball is in a favorable place.

The cleek and lofter are iron-headed clubs, and are used to drive the ball far and low. A hundred and twenty yard stroke is good, but not unusual.

The golf ball, as I have said, is made of hard rubber, but in learning the game any hard ball of medium size will do, and one club will be enough with which to practice.

Hazards are obstructions in the way of the ball.

A bunker is a hazard, such as a fence, wall, hedge, depression, or trees.

The ground between the holes should be cleared as far as possible of all obstructions. Hazards are not objected to by good players, as they add to the sport.

The game called "singles" is where two players, each with his own ball, play against each other.

A "foursomes" is when two players play against another two, each side having a ball and the partners playing alternately.

Often a skilled player will match himself against a number of inferiors; this is called a three or four ball match.

## SHINNY

Of course every boy who can wield a stick has played at this fine, simple old game. One does not need many tools for this sport. A stout shinny stick, curved at the business end, like the best walking sticks, and a ball, or even a chunk of wood, if not too heavy, and large, will do.

The game is played between chosen sides under the lead of properly selected captains. Two goals, from ten to a hundred yards apart, are marked out, and between these the ball is placed.

This done, the captains display their skill by stationing their men in such a way

that they may guard their respective goals if their opponents are driving that way.

The captains start the ball a-rolling; all are free to dash in and strike, taking care to guard their own heads and not to hurt the heads of the enemy, for this is a contest, not a battle.

Each party must keep on its own side, and each goal gained is a game.

## HOCKEY

does not differ much from shinny. In this game the ball is called a hockey, and it does not matter what you call the curved sticks.

The goals are selected, and the sides chosen as in shinny, but in this game the captains toss up for first strike. When the ball is struck, the opposite side tries to stop it, and the contest is on.

When the ball is sent over the opponent's goal line, the game is won.

# Winter

## CHAPTER XXII

### ON THE ICE AND SNOW—THE ROYAL SPORT OF SKATING, WITH SOME HINTS ON SKIING, AND SNOWSHOES

Outdoor sports in winter are necessarily restricted to the thing that can be done in the snow or on the ice. But what glorious, health-giving, strength-making things they are! It is from the land of the stern winter that the world's greatest men have come.

Usually the frost comes before the snow, and with what joy the boys and the girls hear the news, brought by a rosy, eager comrade: "The ice is strong enough to bear."

Of course, our first experience on the ice was when we tried our first slide guided by the hand of a stronger and more expert companion. How soon we learned to do the trick, and what fun there was in "keep the pot a-boiling," while strings of youngsters took the slide. What if some did topple over? No bones were broken, and the

incident always caused a lot of good-natured laughter.

Roller skating indoors or on smooth roads is certainly a good preparation for ice skating, but it is not at all necessary to begin that way, any more than it is to practice swimming with a support about the body.

It is said the children in Holland learn to skate as soon as they leave the cradle. Certainly the young South Sea Islanders learn to swim at an equally early age.

My advice is: Begin skating as soon as Santa Claus, or some other good fairy gives you skates of the right size. Some more advice: Never, from first to last, skate with your hands in your pockets. Leaves, sticks, bits of paper, or similar obstructions may check and stop, perhaps throw you, and at such times the hands should be free to ease the fall.

In the old days, with the help of the blacksmith, the harness maker, and the carpenter, boys had to put their own skates together. Those were certainly clumsy affairs, but there was no end of good sport in them.

To-day, the patent, clamp skate, fitting snug and securely and without any tight straps or tiresome screws, can be bought cheaply and fastened on in a jiffy. But can you use them when on? That is the

question. If you can't, be assured you will soon learn, with patience, practice and the advice of a more experienced companion.

### WRONG HELP

I note that some books on skating advise the beginner to take a chair to the ice and learn on this till confidence is gained. Now confidence is never gained by leaning on anything or depending on any person. Start in to win by having confidence in yourself. This applies to your life work as well as to skating.

When you have mastered your legs somewhat, and can move fairly well forward, it will be quite time for you to learn some other way of getting experience and fun from the sport.

Begin the variation by trying to cut a forward circle. To begin, you strike out on the left foot, with the body leaning toward the left, the center of the proposed circle. When the weight of the body is on the outside edge, the line described by the skate runner will be a curve directed outward. As soon as you find that you can continue on that stroke no longer bring the right foot quickly forward and down. This last must be a short stroke of only sufficient duration to give you time for another outer-edge stroke with your left foot. At

first you will make a very large circle, but gradually you will be able to contract the dimensions. When you have mastered the left-foot circle, try it on the right foot, and practice until you are able to go either way with equal speed.

The backward circle, when learned, is easier than the forward ring, for the push stroke is made with the toe. When going backward great force can be given to the toe-push stroke by slightly lifting the heel.

To cut the circle backward, you must simply reverse your forward movement.

To skate backward, work or scull yourself along any way, until you are able to detect the proper movement and proper manner of giving the strokes. This accomplished, you may call yourself a good plain skater.

The spread eagle is one of the first steps in the advance from plain to fancy skating. Even when well done, it lacks the elements of grace, but it is most excellent practice to render the limbs supple, and make other more graceful tricks possible; and it is a favorite performance of boy skaters.

You must skate straightaway until you have gained sufficient headway, then at the end of the last stroke turn the toes out so that the runners of your skates make a straight line, heel to heel, one skate following the other. In this position you will

glide over the ice until the momentum first gained is exhausted. At first the beginner will be only partially successful, but gradually he will be able to describe a wide circle forward, and in a little while gain sufficient control of his feet to slide across the skating pond in a straight line.

The spread eagle backward will be found more difficult, for it necessitates turning the toes out until they point backward. In performing this last feat, it is no easy matter to keep your balance, but perfection comes with practice, and soon the boy who devotes time to practice will excite the admiration of his comrades by the ease with which he turns either forward or backward. During his practice the beginner will undoubtedly bend his knees, but after he has reached that point of excellence where his whole mind need not be centered on his feet, he may learn gradually to straighten his legs until at last he can do the spread eagle forward and backward without looking like a straddle bug.

A ring can be made without lifting your skates from the ice. This is called a spread-eagle circle, and it is cut by spreading the feet. The skater must learn to keep his feet moving, first the right foot forward and the left foot back, then the left foot forward and right foot back, always with

toes turned out spread-eagle fashion. When properly done, this motion will cause the skater to glide around in a circle, his feet moving in a most bewildering manner, while they weave a pretty grape-vine pattern on the ice.

It would take a volume properly to tell all the possibilities of skating, and the ice games, like shinny, and curling. But the boy who can manage the movements already indicated will be sure to learn by himself the more advanced art of this fine sport.

### SNOW SHOES

are not so well known in the United States as in Canada and throughout the St. Lawrence valley.

Snow shoes are shaped very much like tennis rackets, and are made in much the same way and of much the same material. They are from thirty to thirty-six inches in length, and about one-third that in width. The broad point is to the front, and some eight inches back of this the foot is fastened by means of straps to the front and sides. The framework can be of light willow or strong rattan. The meshes should be closer than in a racket, and the best are made of water-proofed rawhide.

It requires much practice to become ex-

pert in the use of the snow shoe; but once the skill is acquired, twice the distance, over soft snow, can be made in the day, as compared with the average foot man on ordinary ground.

Without snow shoes, winter travel would be well nigh impossible over large areas of British North America. We are indebted to the Indians for this valuable aid to locomotion.

### SKIING

pronounced in Norwegian "sheeting"—is the great winter sport of the Norwegians and Swedes. The sport is fast being introduced into this country and is gaining in popularity in every place where the two requisites—snow and a long, steep hill—can be had.

The ski is a strip of ash or spruce wood, turned up in front like a sled runner, and smooth and straight grained. The length varies from six to ten feet, the width from three to four inches, and the thickness from a third to three-fourths of an inch.

The strap, attached by screws to the middle of the ski, is fastened over the toe part of the foot, leaving the heel free to rise and fall.

Skies are hard to manage going up hill, but on a level of soft snow a great pace

can be kept up. But it is in going down hill, and leaping from a "jounce" that the skier is at his best. It is not unusual for experts to jump one hundred and twenty feet from rise to fall.

## CHAPTER XXIII

### COASTING; SLEDS OF MANY KINDS—THE TOBOGGAN

Long before the strong, light, machine-made sled was put on the market or even thought of, the American boy was his own sled-maker, and if this sled was not so sightly, it certainly got there as effectively as does its modern rival.

The best of the old-time sleds were made by cutting down a small oak, beech, or maple tree that had a promising curve at the root. This was dressed, then sawed down the middle, so as to make the two runners. Through each runner six holes were bored from the top, each pair of holes about two inches apart. Into the holes were driven wooden pegs to hold the three benches. The pegs were long enough to go through the two stringers that ran in line with the runners. Over this the frame was laid. The bottoms of the runners, when the material could be had, were shod with thick hoop iron, the nails being counter-

sunk. In the center curve of the runners, holes were bored for the drawing rope, and all was ready for the snow.

A quicker way was to saw out the proper length for runners from an inch, hardwood board, curve the fronts by means of a draw-knife, then connect the runners by braces, and cover with a frame of lighter material. These sleds, when shod at the blacksmith shop with half-curved iron shoes, were things to delight in, and two of them, properly hitched, made a fine "bob."

The bob sled is superior in every way to the old long sled which delighted the grandfathers of the present boys. The old-fashioned sleds were steered by the boy in front kicking with his heels on the frozen snow, or the boy at the stern by dragging one foot behind as a rudder. This answers very well for the common sled, but when the sled is seven, eight, or ten feet long, and loaded underneath with pig iron to give it weight, the boy in front who steers has a difficult and exceedingly dangerous task, especially if the hill is steep and icy; and it is next to impossible to steer such a craft from the stern by dragging one foot behind.

The double-runner is much lighter and very much easier to steer on account of the front sled being arranged so that it can be moved independently of the rear

sled, for a turn to the right or the left causes the "bob" to take the direction indicated by the front runners; but double-runners steered with a wheel, lever or yoke in front, are very dangerous, as the steersman, in case of an accident, is thrown against the steering apparatus, usually with serious results.

The safety double-runner does away with serious results, having a bridle with which it is steered. It also does away with the danger of collision by having an automatic brake that will stop it, in times of danger, within the distance of its own length. These are qualities which will be appreciated by all who "slide down hill," as we called it when I was a lad, or who are fond of coasting, as our school-readers called it then, and as every one calls it now.

Double-runners, or bob sleds, can be made at home, but the work requires so much varied material, so many tools, and so much skill that I shall not tell how the thing is done. A number of boys, who desire to own a bob sled in partnership, can have the work done by a wagon-maker, who knows just how, and has all the material to hand. Such sleds, and they are usually well made, can be purchased at reasonable prices and of any size from establishments that deal in such articles. These can be found in any of our large cities.

The safe and sane sled, for the ordinary youngster, and the average hill, is that which has a capacity for two—one is still better—and which is steered by sitting astern and keeping one leg back to act as a runner.

### TOBOGGANING

The toboggan is much used in Canada, where the Indians taught the first whites how to make and use it, and has become popular in the northern states, particularly along the Great Lakes. It is made of smooth, closely joined, flexible boards, turned up in front by being steam heated. The toboggan lies flat on the ground and may be of any length from six to twelve or even more feet.

The passengers squat on furs or other coverings laid flat on the toboggan. The steerer sits behind and controls the direction by a trailing pole and sometimes with one foot.

Many Canadian cities have constructed toboggan slides for the use of the people. The most famous of these is at Montreal. This slide has a "joust" or obstruction at the bottom, which causes the toboggan and its occupants to leap into the air in a way that delights the experts and brings alarm to those who are taking their first ride.

But the healthy boy does not limit his winter sports to skates and sleds. Without either of these appliances no end of fun can be had in the snow itself.

It would be a waste of time to describe snowballing, which may be made to afford pleasure, but which as too often done brings discomfort to the ones unexpectedly attacked.

### A SNOW BATTLE

Now, a snow battle, if properly managed, is a different matter, and calls for that endurance and tact that distinguishes the true soldier.

The two selected captains toss up in the usual manner for first choice of men. Then alternately, as in a spelling bee, each chooses a soldier until all are taken. The taw lines are then drawn, about thirty feet apart, and two flag staffs with colored handkerchiefs for flags are erected in each camp. To bear the enemy's flag to your own camp, that is, over the taw line, wins the victory for your side. Tackling is allowed, as in football, and is limited by the same rules. No boy bearing the mark of a snowball on chest or back is allowed to take further part in the game, as he is considered to be a dead soldier, but the dead soldiers may coach their comrades as often

as they please. No tripping, no striking, no ice balls, and no "soakers" (wet snowballs) are allowed.

Snow tag is another good game. Count out for "It." While "It" takes his place at the hub of the wheel, the other players scatter around the circumference or rim, and the word "ready" is given. "It" then darts out one of the "spoke" paths and endeavors to tag some one of the other boys, and the fun begins. Two cannot pass each other on the narrow paths, and the fleeing boys often step on each others' heels, trip and tumble head first into the deep snow, forming an easy prey for "It"; but again the lads will dance around in a most provoking manner, and as "It" darts up one spoke toward the rim, the players dart down the other toward the hub, and show great skill in eluding "It."

## CHAPTER XXIV

### SOME HINTS ON GENERAL ATHLETICS, INCLUDING WALKING, RUNNING AND JUMPING

I do not think the advice I have given, as to the games appropriate for each season would be at all complete, if I did not give some advice that will be useful for all seasons and every day in the year.

To the boy the enjoyment of the sport is the first thing to be considered, but it is not the only thing. Our lives are often affected for good or ill by very little things. Injuries have been received by boys in sport that marred all their after lives.

It is natural for the young to delight in exercise. It is by taking it that they develop, but the development, to be of value, must be along sensible lines.

Every healthy boy wants to be an athlete; wants to excel in some line, and as this ambition is reasonable, it should not be discouraged. The youth eager to win in his sports is not apt to be found lagging

when he takes up the more serious business of life.

Competition is said to be the life of trade, and it certainly adds greatly to our interest in sports, but the boy who starts in to learn by trying to compete is doomed to failure. There would be more success in the end if we learned to go slower and so became more thorough in the beginning.

There are certain exercises that every athlete must take to have a good physique, and the very first, and by far the most useful of these, is walking.

## WALKING

Can you walk? I hear you laughing at the question; but let me change it slightly and ask, "Can you walk properly?"

"Of course I can," you reply. "I walk just like other folks who are not lame."

Now very few people walk properly, and no two people, unless it be soldiers or others who have been drilled to the exercise, walk alike. Just watch and see for yourself.

The good walker is always the graceful, easy walker. He stands erect, but not stiffly. His shoulders are well thrown back. He keeps his mouth closed, except when talking, and he breathes and exhales through his nostrils as the wise God meant

him to do. His clothes fit him loosely and comfortably. He steps naturally, and without a trying stride, or a short step mincing gait, as if he wore hobbles. He walks by lifting his feet and not by raising his shoulders. And he wears shoes or other foot gear that do not breed corns or bunions.

Unless in a great hurry the walk, even the brisk walk, should never exceed three miles an hour; good heel and toe walkers have made forty miles without fatigue in ten hours, but this power comes only after long practice.

Walking is the very best, as it is the very cheapest, form of exercise, and it is best enjoyed on a country road with a cheerful companion.

Remember in all your exercising that good health is the one great object. Suppress all ambition to be merely strong. Many brutes are stronger than many of the strongest men, and many strong men have gone to pieces where lighter but more enduring men have come through the ordeal fresh and unharmed. This I have often noted in war times, when soldiers were called on to make a forced march over trying roads and in a downpour of rain.

Endurance is the great thing to strive for. The man who lasts is the man who wins. Therefore, in your walks, particularly when you are learning to walk well,

like an Indian or a soldier, never try to do more than can be done without making too great a demand on your bodily strength.

### RUNNING

Running is a fine exercise, provided always that it be done in season and in reason. To do it in reason you must start in by acquiring the skill to run and the endurance to keep it up.

There is one organ which if it stopped for a minute, the owner would be dead; that is the heart. Yet many young athletes act as if they were not aware that they had hearts.

No exercise that requires sudden violent effort, like fast rowing, or a hundred-yard dash in running, can be undertaken without serious effect to the heart. The Andean Indians will run, lightly and easily, at the rate of ten miles an hour, and keep it up for ten hours without rest, but you cannot induce them to make a short dash at high speed; they do not want to feel the warning thump of the heart.

In learning to run, breathe as in walking, keeping the body slightly bent forward, and the elbows gripped close to the sides. Under no circumstances start out by competing with any one, or by trying to run against time. Such a course will result in

final failure, and may bring on a serious injury.

The jog trot is the thing to start in with. Try it for a week or two, and you will be surprised at the ease with which you can do it. At first a mile is long enough for a run. After a month you can do two miles without as much fatigue. Finally, if the gait be not too fast, you can keep it up for hours.

After you have mastered the jog, it will be time enough to quicken the pace into a run, not your swiftest run, mark you, but a run that you can keep up for a mile, with as little exhaustion as you did your first mile trot.

It is only by this slow, pleasant training, that you can ever learn to walk and run well, but when you have learned you will be paid for the effort, and then if the time comes to test your speed you will be ready to respond.

Jumping is closely related to running. It is an exercise in which boys delight, but which they seldom practice so as to achieve any skill.

We divide this exercise into standing and running jumps, and each of these can be subdivided into high and broad jumps.

In running contests, hurdles or other obstructions are placed in the path of the runner. These hurdles vary in height, but if

you want to learn, start in with one or two about as high as your knee. Of course, you could take them standing, and it is not a bad exercise, but learn to take them at a moderate run. When you can do this with ease, increase the number or the closeness of the hurdles and add to the length of the run.

After a time you can take more and higher hurdles and lengthen the run, but never do either if you find your heart beating, or that the effort brings fatigue.

I do not think the running high jump pays for the effort. It is spectacular, that is all; not so the running broad jump. This may be of use. It is safe and sane, and with practice it is surprising the distance that can be covered.

After violent exercise of any kind, be sure to take a bath and a brisk rub down. If this cannot be had, a towel well soaked in cold water will make a good substitute, if you dry down with another towel.

If your clothes are wet and you are exercising, they may be allowed to dry on you with safety, but if you cannot do this, get dry clothes if possible. I have known sturdy boys to contract rheumatism from wet clothes; and they never got over it.

In conclusion, let me advise common sense. Think before you act, even when you are out for sport.

## CHAPTER XXV

### BATTLE CRIES, HAILING SHOUTS, AND COLLEGE YELLS

The American Indians, like the uncivilized of all lands, had their own peculiar battle cry or war-whoop, which it is impossible to reproduce by letters. During our Civil War the Confederates gave a thrilling imitation of it in their famous "Rebel Yell," which every old soldier recalls with more or less admiration.

The ancient Greeks joined in battle with shouts of "Eleleu!" The Welsh cry was "Ubub!" from whence comes our word hubbub, meaning a confusion. The Irish war shout was nearly like that of the Greek, being "Ullulu!" The Scotch clans had each its own shout or slogan; the pibroch being the chant of the march to battle.

Of old, the Hungarian horseman, when charging shouted "Huzza!" and so the name Hussar is given to the light cavalry regiments of many of the European armies.

The Australian herders have a hailing cry, learned from the natives, which, properly done, carries a great distance. It sounds like "Coo-ee!" the first syllable being made deep in the chest, and the other a shrill head note.

The Yaqui Indians of northern Mexico take their name from their peculiar war cry, "Ya-kee," which is produced like the Australian coo-ee. I have heard this thrilling cry for a distance of over one mile in the Sierra Madre mountains.

All boys, whether bound for college or not, are always interested in what are known as "College Yells." Each college has its own yell, and in some of them great pains, if not great originality, is shown in the construction of the words. Here are a few:

*Princeton*—"Hurrah! Hurrah! Hurrah! Tiger-siss-boom-ah! PRINCETON!" And the sturdy sons of

*Yale*—"Rah! Rah! Rah! Rah! Rah! Rah! Rah! Rah! Rah! YALE!" quickly and sharply enunciated.

*Harvard* boys cry, with long-drawn deep notes, "Rah! rah! rah! Rah! rah! rah! Rah! rah! rah! HARVARD!"

*Cornell*—"Cornell I yell! yell! yell! CORNELL!"

*Williams College*—"Rah! rah! rah! yums! yams! yums! WILLYUMS!"

*Trinity College*—"Rah! rah! rah! Trinity! Boom-rah! Boom-rah! TRIN-EYE-TEE!"

*Wesleyan College*—"Rah! rah! rah! rah! Wesleyan! Rah! rah! rah! rah!

*Brown College*—"Rah, rah, rah, rah! BROWN!"

*Colorado College*—"Rah! rah! rah! Pike's Peak or bust! Colorado College! Yell we MUST!"

*The Leland Stanford, Jr.*—"Wah hoo! Ya hoo! L. S. J. U.! STANFORD!"

*Dartmouth College*—"Hi! hi! hi! Rah! rah! rah! D-d-d-d-Dartmouth, wah, who, wah!" or, "Wah, who, wah! Wah, who, wah! Da, di, di, Dartmouth! Wah, who wah!"

*Union College*—"Rah, rah, rah! U-N-I-O-N. Hikah! hikah! hikah!"

*University of Illinois*—"Rah, hoo, rah! Zipp, boom, ah! Hip-zoo! Rah-zoo. Jimmy blow your bazoo! Ip-sidi-iki U. off I. campaign!"

*Hanover*—"Han, Han! HANOVER!"

*Westminster*—"Rah, rah, rah! Oh, yes, sir! Vive-la, Vive-la! WESTMINSTER!"

*Cornell, of Iowa*—"Zip-siss-boom! Cor-cor-nell! C-C. tiger-la! Zipp-siss-hur-rah!"

*Amherst*—"Rah! rah! rah!" etc., and terminating with the name of their institution.

*Boston University*—"Boston, B-B-BOS-TON! Varsity! Varsity! Varsity! Rah! rah! rah!"

*Rutgers*—"Rah, rah, rah! Bow-wow-wow! RUTGERS!"

*Rochester University*—"Waxico, waxico, waxico, wax! Waxico, waxico, waxico, wax!" Brek-k-ks—Brek-k-ks, ah-h-ah! ROCHESTER!"

*University of Washington*—"U. of W.! Hiah! Hiah! U. of W.! U. of W.! Siah! Siah! Shooken' Shookem! WASHING-TON!"

*Hobart College*—"Hip-ho-bart! Hip-ho-bart! Hip-ho, hip-ho, HIP-HO-BART!"

*Syracuse University*—"Srah — Srah — Srah Sy-ra-cuse!"

This list by no means comprises all the college cries, but it will serve to illustrate the most striking of them.

Even the women's colleges have their own distinctive cries, and for oddness they quite equal those of the men. And now the high schools, and even the separate classes and school societies are indulging in original cries. But so long as these things keep up the class spirit and make for sound lungs and high spirits, why should old fogies object?

## CHAPTER XXVI

## CLEVER TRICKS WORTH KNOWING

### THE VANISHING KNOTS

For this trick you must use a silk handkerchief. Twisting it, rope-fashion, and grasping it by the middle with both hands. You must request one of the spectators to tie the two ends together. He does so, but you tell him he has not tied them half tight enough, and you yourself pull them still tighter. A second and a third knot are made in the same manner, the handkerchief being drawn tighter by yourself after each knot is made. Finally, take the handkerchief, and covering the knots with the loose part, you hand it to some one to hold. Breathing on it, you request him to shake out the handkerchief, when all the knots are found to have disappeared.

When the performer apparently tightens the knot, he in reality only strains one end of the handkerchief, grasping it above and

below the knot. This pulls that end of the handkerchief out of its twisted condition and into a straight line, round which the other end of the handkerchief remains twisted; in other words, converts the knot into a slip-knot. After each successive knot he still straightens this same end of the handkerchief. This end, being thus made straight, would naturally be left longer than the other, which is twisted round and round it. This tendency the performer counteracts by drawing it partially back through the slip-knot at each pretended tightening. When he finally covers over the knots, which he does with the left hand, he holds the straightened portion of the handkerchief, immediately behind the knots, between the first finger and thumb of the right hand, and therewith, in the act of covering over the knots, draws this straightened portion completely out of the slip-knot.

### THE DANCING SAILOR

The Dancing Sailor is a figure cut out of cardboard, eight or nine inches in height, and with its arms and legs cut out separately, and attached to the trunk with thread in such a manner as to hang perfectly free. The mode of exhibiting it is as follows: The performer, taking a seat facing the company, with his legs slightly

apart, places the figure on the ground between them. As might be expected, it falls flat and lifeless, but after a few mesmeric passes it is induced to stand upright, though without visible support, and, on a lively piece of music being played, dances to it, keeping time, and ceasing as soon as the music ceases.

The secret lies in the fact that, from leg to leg of the performer, at about the height of the figure from the ground, is fixed (generally by means of a couple of bent pins), a fine black silk thread, of eighteen or twenty inches in length. This allows him to move about without any hindrance. On each side of the head of the figure is a little slanting cut, tending in a perpendicular direction, and about half an inch in length. The divided portions of the cardboard are bent back a little, thus forming two "hooks," so to speak, at the sides of the head. When the performer takes his seat, as before mentioned, the separation of his legs draws the silk comparatively taut, though, against a moderately dark background, it remains wholly invisible. When he first places the figure on the ground, he does so simply, and the figure naturally falls. He makes a few sham mesmeric passes over it, but still it falls. At the third and fourth attempt, however, he places it so that the little hooks already

mentioned just catch the thread, and the figure is thus kept upright. When the music commences, the smallest motion, or pretence of keeping time with the feet is enough to start the sailor in a vigorous hornpipe.

## CONJURING WITH COINS

Coin-conjuring has its own peculiar sleights, which it will be necessary for the student to practice diligently before he can hope to attain much success in this direction.

The first faculty which the novice must seek to acquire is that of "palming"—*i.e.*, secretly holding an object in the open hand by the contraction of the palm. To acquire this power, take a half-crown, florin, or quarter (these being the most convenient in point of size), and lay it on the palm of the open hand. Now close the hand very slightly, and if you have placed the coin on the right spot (which a few trials will quickly indicate), the contraction of the palm around its edges will hold it securely, and you may move the hand and arm in any direction without fear of dropping it. You should next accustom yourself to use the hand and fingers easily and naturally, while still holding the coin as described. A very little practice will

enable you to do this. You must bear in mind while practicing always to keep the inside of the palm either downward or toward your own body, as any reverse movement would expose the concealed coin.

### PASSES

Being thoroughly master of this first lesson, you may proceed to the study of the various "passes." All of the passes have the same object—viz., the apparent transfer of an article from one hand to the other, though such article really remains in the hand which it has apparently just quitted. As the same movement frequently repeated would cause suspicion, and possibly detection, it is desirable to acquire different ways of effecting this object. It should be here mentioned that the term "palming," which we have so far used as meaning simply the act of holding any article, is also employed to signify the act of placing any article in the palm by one or the other of various passes. The context will readily indicate in which of the two senses the term is used in any given passage.

Pass I.—Take the coin in the right hand, between the second and third fingers and the thumb, letting it, however, really be supported by the fingers, and only steadied by the thumb. Now move the thumb out

of the way, and close the second and third fingers, with the coin balanced on them, into the palm. If the coin was rightly placed in the first instance, you will find that this motion puts it precisely in the position above described as the proper one for palming; and on again extending the fingers the coin is left palmed. When you can do this easily with the hand at rest, you must practice doing the same thing with the right hand in motion toward the left, which should meet it open, but should close the moment that the fingers of the right hand touch its palm, as though upon the coin which you have by this movement feigned to transfer to it. The left hand must thenceforward remain closed, as if holding the coin, and the right hand hang loosely open, as if empty.

### PALMING

In the motion of "palming," the two hands must work in harmony, as in the genuine act of passing an article from the one hand to the other. The left hand must therefore rise to meet the right, but should not begin its journey until the right hand begins its own. Nothing looks more awkward or unnatural than to see the left hand extended, with open palm, before the right hand has begun to move toward it.

Pass 2.—This is somewhat easier than Pass 1, and may sometimes be usefully substituted for it. Take the coin edgeways between the first and third fingers of the right hand, the sides of those fingers pressing against the edges of the coin, and the middle finger steadying it from behind. Carry the right hand toward the left, and at the same time move the thumb swiftly over the face of the coin till the top joint passes its outer edge, then bend the thumb, and the coin will be found to be securely nipped between that joint and the junction of the thumb with the hand. As in the last case, the left hand must be closed the moment the right hand touches it; and the right must thenceforth be held with the thumb bent slightly inward toward the palm, so that the coin may be shielded from the view of the spectators. This is an especially quick mode of palming, and if properly executed the illusion is perfect.

Pass 3.—Hold the left hand palm upward, with the coin in position. Move the right hand toward the left, and let the fingers simulate the motion of picking up the coin, and instantly close. At the same moment slightly close the left hand, so as to contract the palm around the coin, and drop the hand, letting it hang loosely by your side.

THE VANISHING TRICK

A word of caution may here be desirable. These "passes" must by no means be regarded as being themselves tricks, but only as processes to be used in the performance of tricks. If the operator, after pretending to pass the coin, say from the right hand to the left, and showing that it had vanished from the left hand, were to allow his audience to discover that it had all along remained in his right hand, they might admire the dexterity with which he had in this instance deceived their eyes, but they would henceforth guess half the secret of any trick in which palming was employed. If it is necessary immediately to reproduce the coin, the performer should do so by appearing to find it in the hair or whiskers of a spectator, or in any other place that may suit his purpose, remembering always to indicate beforehand that it has passed to such a place, thereby diverting the general attention from himself. As the coin is already in his hand, he has only to drop it to his finger-tips as the hand reaches the place he has named, in order, to all appearance, to take it from thence.

The various passes may be employed not only to cause the disappearance of an article, as above described, but to secretly

change it for a substitute of similar appearance. These exchanges are of continual use in conjuring; indeed, we may almost say that three parts of its marvels depends on them. Such an exchange having been made, the substitute is left in sight of the audience, while the performer, having thus secretly gained possession of the original, disposes of it as may be necessary for the purpose of the trick.

With this brief practical production, we proceed to describe a few of the simpler tricks with coins.

### HEADS OR TAILS

You borrow a quarter, and spin it, or invite some other person to spin it, on the table (which must be without a cloth). You allow it to spin itself out, and immediately announce, without seeing it, whether it has fallen head or tail upward. This may be repeated any number of times with the same result, though you may be blindfolded, and placed at the further end of the apartment.

The secret lies in the use of a quarter of your own, on one face of which (say on the "tail" side) you have cut at the extreme edge a little notch, thereby causing a minute point or tooth of metal to project from that side of the coin. If a coin so prepared

be spun on the table, and should chance to go down with the notched side upward, it will run down like an ordinary coin, with a long continuous "whirr," the sound growing fainter and fainter till it finally ceases; but if it should run down with the notched side downward, the friction of the point against the table will reduce this final whirr to half its ordinary length, and the coin will finally go down with a sort of "flop." The difference of sound is not sufficiently marked to attract the notice of the spectators, but is perfectly distinguishable by an attentive ear. If, therefore, you have notched the coin on the "tail" side, and it runs down slowly, you will cry "tail"; if quickly, "head."

If you professedly use a borrowed coin, you must adroitly change it for your own, under pretence of showing how to spin it, or the like.

### ODD OR EVEN; OR, THE MYSTERIOUS ADDITION

You take a handful of coins, and invite another person to do the same, and to ascertain privately whether the number he has taken is odd or even. You request the company to observe that you have not asked him a single question, but that you are able, notwithstanding, to divine and coun-

teract his most secret intentions, and that you will, in proof of this, yourself take a number of coins and add them to those he has taken, when, if his number was odd, the total shall be even; if his number was even, the total shall be odd. Requesting him to drop the coins he holds into a hat, held on high by one of the company, you drop in a certain number on your own account. He is now asked whether his number was odd or even; and, the coins being counted, the total number proves to be as you stated, exactly the reverse. The experiment is tried again, with different numbers, but the result is the same.

The secret lies in the simple arithmetical fact, that if you add an odd number to an even number, the result will be odd; if you add an odd number to an odd number, the result will be even. You have only to take care, therefore, that the number you yourself add, whether large or small, shall always be odd.

### TO RUB ONE DIME INTO THREE

This is a simple little parlor trick, but will sometimes occasion a good deal of wonderment. Procure three dimes of the same issue, and privately stick two of them with wax to the under side of a table, at about half an inch from the edge, and eight

or ten inches apart. Announce to the company that you are about to teach them how to make money. Turn up your sleeves, and take the third dime in your right hand, drawing particular attention to its date and general appearance, and indirectly to the fact that you have no other coin concealed in your hands. Turning back the table cover, rub the dime with the ball of the thumb backward and forward on the edge of the table. In this position your fingers will naturally be below the edge. After rubbing for a few seconds, say: "It is nearly done, for the dime is getting hot," and, after rubbing a moment or two longer with increased rapidity, draw the hand away sharply, bringing away with it one of the concealed dimes, which you exhibit as produced by the friction. Leaving the waxed dime on the table, and again showing that you have but one coin in your hands, repeat the operation with the remaining dime.

### THE CAPITAL Q

Take a number of coins, say from five-and-twenty to thirty, and arrange them in the form of the letter Q, making the "tail" consist of some six or seven coins. Then invite some person (during your absence from the room) to count any number he pleases, beginning at the tip of the tail

and travelling up the left side of the circle, touching each coin as he does so; then to work back again from the coin at which he stops (calling such coin one), this time, however, not returning down the tail, but continuing round the opposite side of the circle to the same number. During this process you retire, but on your return you indicate with unerring accuracy the coin at which he left off. In order to show (apparently) that the trick does not depend on any arithmetical principle, you reconstruct the Q, or invite the spectators to do so, with a different number of coins, but the result is the same.

The solution lies in the fact that the coin at which the spectator ends will necessarily be at the same distance from the root of the tail as there are coins in the tail itself. Thus, suppose that there are five coins in the tail, and that the spectator makes up his mind to count eleven. He commences from the tip of the tail, and counts up the left side of the circle. This brings him to the sixth coin beyond the tail. He then retrogrades, and calling that coin "one," counts eleven in the opposite direction. This necessarily brings him to the fifth coin from the tail on the opposite side, being the length of the tail over and above those coins which are common to both processes. If he chooses ten, twelve, or any other

number, he will still, in counting back again, end at the same point.

The rearrangement of the coins which is apparently intended to make the trick more surprising, is really designed, by altering the length of the tail, to shift the position of the terminating coin. If the trick were performed two or three times in succession, with the same number of coins in the tail, the spectators could hardly fail to observe that the same final coin was always indicated, and thereby to gain a clue to the secret. The number of coins in the circle itself is quite immaterial.

### THE WANDERING DIME

Have ready two dimes, each slightly waxed on one side. Borrow a dime, and secretly exchange it for one of the waxed ones, laying the latter waxed side uppermost on the table. Let any one draw two squares of ordinary card-board. Take them in the left hand, and, transferring them to the right, press the second waxed dime against the center of the undermost, to which it will adhere. Lay this card (which we will call a) on the table, about eighteen inches from the dime which is already there, and cover such dime with the other card, b. Lift both cards a little way from the table, to show that the dime is under

card a, and that there is (apparently) nothing under card b. As you replace them, press lightly on the center of card a. You may now make the dime appear under whichever card you like, remembering that, if you wish the dime not to adhere, you must bend the card slightly upward in taking it from the table; if otherwise, take it up without bending.

### THE MAGIC COVER AND VANISHING PENNIES

For the purpose of this trick, you require half a dozen cents, of which the center portion has been cut out, leaving each a mere rim of metal. Upon these is placed a complete cent, and the whole are connected together by a rivet, running through the whole thickness of the pile. When placed upon the table, with the complete coin upward, they have all the appearance of a pile of ordinary pennies, the slight lateral play allowed by the rivet aiding the illusion. A little leather cap (shaped something like a fez, with a little button on the top, and of such size as to fit loosely over the pile of cents) with an ordinary die, such as backgammon is played with, complete the necessary apparatus.

You begin by drawing attention to your magic cap and die, and in order to exhibit their mystic powers, you request the loan

of half a dozen cents (the number must, of course, correspond with that of your own pile). While they are being collected, you take the opportunity to slip the little cap over your prepared pile, which should be placed ready to hand behind some small object on the table, so as to be unseen by the spectators. Pressing the side of the cap, you lift the pile with it, and place the whole together in full view, in close proximity to the die. The required cents having been now collected, you beg all to observe that you place the leather cap (which the spectators suppose to be empty) fairly over the die. Taking the genuine coins in either hand, you pretend, by one or the other of the "passes", to transfer them to the other. Holding the hand which is now supposed to contain the coins immediately above the cap, you announce that they will at your command pass under the cap, from which the die will disappear to make room for them. Saying, "One, two, three! Pass!" you open your hand, and show that the coins have vanished; and then, lifting up the cap by the button, you show the hollow pile, covering the die and appearing to be the genuine coins. Once more covering the pile with the cap, you announce that you will again extract the coins, and replace the die; and to make the trick still more extraordinary, you will this time pass

the coins right through the table. Placing the hand which holds the genuine coins beneath the table, and once more saying, "One, two, three! Pass!" you chink the coins, and, bringing them up, place them on the table. Again picking up the cap, but this time pressing its sides, you lift up the hollow pile with it and disclose the die. Quickly transferring the cap, without the pile, to the other hand, you place it on the table, to bear the brunt of examination, while you get rid of the prepared coins.

### THE PEPPER-BOX, FOR VANISHING MONEY

This is a small tin box, of the pepper-box or flour-dredger shape, standing three to four inches high. The "box" portion (as distinguished from the lid) is made double, consisting of two tin tubes sliding the one within the other, the bottom being soldered to the inner one only. By pulling the bottom downward, therefore, you draw down with it the inner tube, telescope fashion. By so doing you bring into view a slit or opening at one side of the inner tube, level with the bottom, and of such a size as to let a half-dollar pass through it easily. The lid is also specially prepared. It has an inner or false top, and between the true and false top a loose

bit of tin is introduced which rattles when the box is shaken, unless you at the same time press a little point of wire projecting from one of the holes at the top, and so render it, for the time being silent. The box is first exhibited with the inner tube pushed up into its place, and the opening thereby concealed. A marked coin is borrowed, but either before or after the coin is placed therein, as may best suit his purpose, the performer secretly draws out the inner tube a quarter of an inch or so, thus allowing the coin to slip through into his hand. As he places the box on the table, a very slight pressure suffices to force the tube up again into its original position, and close the opening. Having made the necessary disposition of the coin, the performer takes up the box and shakes it, to show (apparently) that the coin is still there, pressing on the little point above mentioned when he desires it to appear that it has departed, and immediately opening the box to show that it is empty. The pepper-box will not bear minute inspection, and is in this particular inferior to the rattle box.

### A NEST OF BOXES

This consists of half a dozen circular wooden boxes, one within the other, the

outer box having much the appearance, but being nearly double the size, of an ordinary tooth-powder box, and the smallest being just large enough to contain a quarter. The series is so accurately made that, by arranging the boxes in due order one within the other, and the lids in like manner, you may, by simply putting on all the lids together, close all the boxes at once, though they can only be opened one by one.

These are placed, the boxes together and the lids together, anywhere so as to be just out of sight of the audience. If on your table, they may be hidden by any more bulky article. Having secretly obtained possession, by either of the means before described, of a coin which is ostensibly deposited in some other piece of apparatus, you seize your opportunity to drop it into the innermost box, and to put on the united lids. You then bring forward the nest of boxes (which the spectators naturally take to be one box only), and announce that the twenty-five cent piece will at your command pass from the place in which it has been deposited into the box which you hold in your hand, and which you forthwith deliver to one of the audience for safe keeping. Touching both articles with the mystic wand, you invite inspection of the first to show that the money has departed, and then of the box wherein it is to be

found. The holder opens the box, and finds another, and then another, and in the innermost of all, the marked coin. Seeing how long the several boxes have taken to open, the spectators naturally infer that they must take as long to close, and (apart from the other mysteries of the trick) are utterly at a loss to imagine how, with the mere moment of time at your command, you could have managed to insert the coin, and close so many boxes. If you desire to use the nest for a coin larger than a quarter, you can make it available for that purpose by removing beforehand the smallest box.

### THE BALL OF BERLIN WOOL

An easy and effective mode of terminating a money trick is to pass the marked coin into the center of a large ball of Berlin wool or worsted, the whole of which has to be unwound before the coin can be reached. The modus operandi, though perplexing to the uninitiated, is absurdly simple when the secret is revealed. The only apparatus necessary over and above the wool (of which you must have enough for a good-sized ball), is a flat tin tube, three to four inches in length, and just large enough to allow a quarter or half-dollar (whichever you intend to use for the trick)

to slip through it easily. You prepare for the trick by winding the wool on one end of the tube, in such manner that when the whole is wound in a ball, an inch or so of the tube may project from it. This you place in your pocket, or anywhere out of sight of the audience. You commence the trick by requesting some one to mark a coin, which you forthwith exchange by one or the other of the means already described, for a substitute of your own, and leave the latter in the possession or in view of the spectators, while you retire to fetch the ball of wool, or simply take it from your pocket. Before producing it, you drop the genuine coin down the tube into the center of the ball, and withdraw the tube giving the ball a squeeze to remove all trace of an opening. You then bring it forward, and place it in a glass goblet or tumbler, which you hand to a spectator to hold. Taking the substitute coin, you announce that you will make it pass invisibly into the very center of the ball of wool, which you accordingly pretend to do, getting rid of it by means of one or other of the "passes" already described. You then request a second spectator to take the loose end of the wool, and to unwind the ball, which, when he has done, the coin falls out into the goblet.

The only drawback to the trick is the

tediousness of unwinding. To obviate this, some performers use a wheel made for the purpose, which materially shortens the length of the operation.

## CHAPTER XXVII

### SLEIGHT OF HAND

### TO BALANCE AN EGG

Lay a looking glass upon an even table; take a fresh egg, and shake it for some time, so that the yolk may be broken and mixed up with the white. You may then balance it on its point, and make it stand on the glass. This it would be impossible to do if the egg was in its natural state.

### THE JUGGLER'S LUNCH

Pare some large apples that are rather of a yellow tint; cut several pieces out of them, in the shape of a candle-end, round, of course, at the bottom, and square at the top; in fact, as much as possible like a candle that has burnt down within an inch or so. Then, cut some slips out of the insides of sweet almonds, fashion them as much in the shape of spermaceti wicks as you can, stick them into your mock can-

dles, light them for an instant, so as to make their tops black, blow them out again, and they are ready for use. When you produce them, light them (the almond will readily take fire, and flame for a few moments), put them into your mouth, chew and swallow them one after another.

### RING AND RIBBON

Select two pieces of ribbon, alike in length, breadth, and color; double each separately, so that the ends meet; then tie them together neatly, with a bit of silk of their own color, by the middle, or crease made in doubling them. This must all be done in advance. When you are going to exhibit this trick, pass some rings on the doubled ribbons, and give the two ends of one ribbon to one person to hold, and the two ends of the other to another. Do not let them pull hard, or the silk will break, and your trick be discovered by the rings falling on the ground on account of the separation of the ribbons. Request the two persons to approach each other, and take one end from each of them, and without their perceiving it, return to each of them the end which the other had previously held. By now giving the rings, which appeared strung on the ribbon, a slight pull,

you may break the silk, and they will fall into your hand.

### THE CHANGING BALL TRICK

Take a ball in each hand, and stretch your hands as far as you can, one from the other; then state that you will contrive to make both the balls come into either hand, without bringing the hands near each other. If any one dispute your power of doing this, you have no more to do than to lay one ball down upon the table, turn yourself, and take it up with your other hand. Thus both the balls will be in one of your hands, without their approaching each other.

### THE SENSITIVE GOBLET

To fill a glass with water, so that no one may touch it without spilling all the water. Fill a common glass or goblet with water, and place upon it a bit of paper, so as to cover the water and edge of the glass; put the palm of your hand on the paper, and taking hold of the glass with the other, suddenly invert it on a very smooth table, and gently draw out the paper; the water will remain suspended in the glass, and it will be impossible to move the glass without spilling all the water.

### TO LIGHT A CANDLE BY SMOKE

When a candle is burnt so long as to leave a tolerably large wick, blow it out; a dense smoke, which is composed of hydrogen and carbon, will immediately rise. Then, if another candle, or lighted taper, be applied to the utmost verge of this smoke, a very strange phenomenon will take place. The flame of the lighted candle will be conveyed to that just blown out, as if it were borne on a cloud, or, rather, it will seem like a mimic flash of lightning proceeding at a slow rate.

### THE MAGIC RE-ILLUMINATION

After having exhibited the trick of lighting a candle by smoke, privately put a bit of paper between your fingers, and retire to one corner of the room with a single candle, and pass the hand in which you hold the paper several times slowly over the candle until the paper takes fire; then immediately blow the candle out, and presently pass your hand over the snuff and relight it with the paper. You may then crumple the paper, at the same time extinguishing the flame, by squeezing it suddenly, without burning yourself. If this trick be performed dextrously, it is a very

good one. It is not necessary for the performance of this trick that all the other lights in the room should be extinguished; in fact the trick is more liable to discovery in a dark room, than in one where the candles are burning, on account of the light thrown out by the paper while it is burning, previous to the re-illumination.

### THE MOVING BALL

Roll up a piece of paper, or other light substance, and privately put into it any small insect, such as a lady-bird, or beetle; then, as the creature will naturally endeavor to free itself from captivity, it will move its covering toward the edge of the table, and when it comes there, will immediately return, for fear of falling; and thus, by moving backward and forward, will excite much diversion to those who are ignorant of the cause.

### THE PAPER FURNACE

Enclose a bullet in paper, as smoothly as possible, and suspend it above the flame of a lamp or candle; you will soon see it melt and fall, drop by drop, through a hole which it will make in the paper; but the paper, except the hole mentioned, will not be burnt. The art of performing this trick

consists in using a smooth round bullet, and enclosing it in the paper with but few folds or uneven places.

### STORM AND CALM

Pour water into a glass until it is nearly three parts full; then almost fill it up with oil; but be sure to leave a little space between the oil and the top of the glass. Tie a bit of string round the glass, and fasten the two ends of another piece of string to it, one on each side, so that, when you take hold of the middle of it to lift up the glass, it may be about a foot from your hand. Now swing the glass to and fro, and the oil will be smooth and unruffled, while the surface of the water beneath it will be violently agitated.

THE END.

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